

Research on the Path of Promoting Macau's Economic Development by Gambling Industry

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ABSTRACT

Macao is famous for its booming gambling industry. The gambling industry plays an important role in the local economic system by creating huge revenue for the local government, therefore it leads rapid economic growth, society's stability, and reversed the situation of economic recession in Macao before its return. We all know that gambling industry leads Macao's economic growth, but a few people know the detailed information about gambling. In this text we will deeply study Macao's gaming industry by introducing the development of gambling, analyzing the its contribution to local economy, the potential problems it has, and the future strategies in solving the gambling's problems to develop better.

KEYWORDS

Macao; Gambling industry; Financial revenue; Economic growth; Negative effects

1. INTRODUCTION

1.1. Research Background

Macao, a special administrative region located in the southeast of China. It consists of a peninsula and two islands which are Taipa and Coloane, the total area is only 32.9 square kilometers. Although it is a tiny land, it is a famous city because of its long history and culture as well as its booming gambling industry.

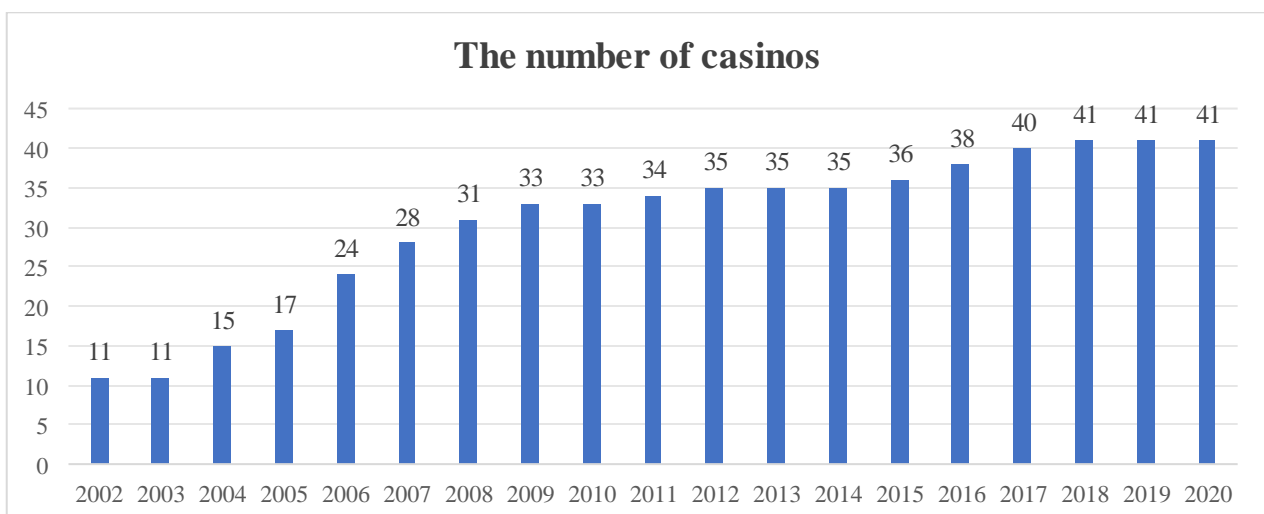


Figure 1. The number of casinos in Macao

In Figure 1, we can find that since Macao's return to China, the gambling industry has expanded because of the increase in the number of casinos. The gambling industry plays an important role in the local economic system. Macao along with Las Vegas, Monte Carlo are known as the world's three major gambling cities. As a world-renowned gambling city, Macao's gambling industry has not only luxurious casino facilities, and diverse gambling projects, but also attracts tourists and gamblers from all over the world. Therefore it has created huge financial revenue for the local area and played a key role in promoting the overall development of the city.

On the other hand, gambling is a special form of service industry it can not only attract a large number of capital and resources, but also drive the coordinated development of related industries, such as tourism, hotels, catering, retail and other industries, and it will also offer a large number of job opportunities, so that the regional gross domestic product(GDP) and be contributed dramatically.

However, in recent years, Macao's gaming industry also exists some problems. So Macao's gaming industry must seek a new breakthrough and new strategies. So it is worth to deeply study the role of Macao's gaming industry in promoting local economy, analyze its development status, problems and future development strategies. It not only helpful to provide decision-making basis for the development of the gambling industry in Macao, but also provides useful reference for the development of the gambling industry or similar special industries in other regions.

1.2. The Evolution of the Gambling Industry in Macao

The gambling industry in Macao has a long history. It can be dated back to 16th century when workers from mainland China immigrated to Macao and drove the gambling activities. Then in 1847, the Portuguese Macao Government claimed that gambling won't be regulated, therefore the gambling became legal gradually. Under such a condition, gambling activities can be seen everywhere [1]. In 1961, Macao's gaming industry reached a crucial turning point, when Sociedade de Turismo e Diversoes de Macau (STDM) controlled by Hong Kong's magnate Stanley Ho issued gambling franchise, in the next year STDM got the approval from the government to run the gambling industry and the first casino was opened soon, the STDM operates many forms of gambling such as horse and greyhound racing and various lotteries. After several years Lisboa Casino was opened, which offer various gambling games including baccarat, blackjack and slot machines. Besides, many other big casinos were also built such as the Mandarin Oriental, the Hyatt Regency hotels, the Kingsway Hotel, the Holiday Inn, the Palacio Pelota Basca, the Macau Palace 'floating casino', Kam Pek, the Victoria Casino and so on. From then on the tax revenue from gambling has been increasing rapidly, especially in 1993 the gross taken from casinos reached US\$1.8 billion, the local government received more than US\$550 million from gambling, representing some 51% of its total income [2]. Until 2002, the casino gambling became liberalized, therefore more and more international players were attracted to the industry. In the following year individual visit scheme published by Macao allowed citizens from mainland China to come to Macao for travelling without the need to join a tour was opened [3]. In the following ten years, there is a glorious times for the gambling industry, especially in 2006 the gambling revenue of Macao overtook that of Las Vegas. Until 2013 Macao gambling industry reached its peak. But from 2014 to 2016 the gross gambling revenue dropped, but it recovered soon from 2017 to 2019 [4]. However due to the outbreak of Covid-19, the gambling industry was shocked seriously, during the three years' pandemic, the gambling industry developed sluggishly, many casinos were facing operational difficulties, some even suspended business, therefore the income of relevant employees has plummeted, it recovered again from 2023 [5].



Figure 2. Macao’s gambling revenue

2. LITERATURE REVIEW

For the research on gambling industry, many scholars have conducted extensively by analyzing its contribution to economy, related industries, potential problems in society and development strategies from multiple perspectives.

When we study the gambling industry’s effect, the scholars give their comments by referring to other regions with strong gambling industry. Eadington analyzed the economic data of the United States for many years and found that the gambling industry in the United States has been a growing industry over the past three decades, casino gambling spread rapidly and has boosted economic growth in several states. The gains from casino gambling can be used in job opportunities’ creation, investment stimulation, developing tourism, economic development and redevelopment, infrastructure revitalization and improving the economic status of underprivileged groups [6]. Walker conducted his research by quantifying the social costs and benefits of gambling, in which he found there is a close relationship between gambling industry and tourism, catering industry and hotel industry in some areas of the United States, he showed us that people can have enjoyment from gambling, therefore drive the tourism, as many casinos are located alongside hotels and restaurants therefore, the gambling can drive the development of hotel and catering industries [7]. However, as the gambling industry expands, some social problems have gradually become prominent. Andreassen studied the social consequences of gambling in some British cities in 2013, in his study he founded that the proportion of British adults who are addicted to gambling is 0.9%, these people are easier to be addicted to the gambling activities that have high event frequencies. Generally speaking, a British people can be addicted to gambling because of receiving constant rewards, the lack of money usually lead to addictive behavior, the gambling has led to many problems such as criminal behavior, domestic violence, family conflicts, and most commonly children going without food and other basic needs, such problems has brought many negative impacts on social stability and educational development [8].

However in China, Macao is the only city in which the gambling is legal. The research on Macao's gambling industry gradually increased after Macao’s return. From the perspective of economic growth, scholars have affirmed the core position of the gambling industry in Macao's economy. Mingjie Sheng and Chaolin Gu carried out in-depth study, the gambling development contributed to economic growth, overall employment, per-capital income, and poverty alleviation. To expand Macao’s market, the SAR government was encouraging foreign investments in gaming-related infrastructure and promotion activities, therefore more Las Vegas-style casino-resort complexes were built leads the expansion of Macao’s land area. The gambling industry drives tourism, as more and more visitors come to Macao, local service sectors such as hotels, restaurants, wholesale, retail are generally pro-cyclical with gaming industry booms. Also, Macao's flourishing gaming sector has

contributed reallocation of labor and land resources from lagging sectors to booming sectors. However the gaming industry has also brought some problems, for example it has given rise to highly uneven spatial development within Macao. As the gaming industry drove the tourism more and more urban space to tourism activities, the needs of local residents were ignored, most tourists are from mainland China, the change in visa policies of mainland China might affect Macao's gambling revenues and the living conditions for locals might be worsen [9].

On the whole, researches from home and abroad have provided a rich perspective for in-depth understanding of the multi-faceted nature of the gambling industry. However, in the face of new developments in the global economy further exploration and research remain to be done on how to resolve social conflicts and achieve further development while consolidating economic advantages of the gambling industry in Macao, which is also the core issue of this paper.

3. METHODS

In this paper we will deeply analyze the role of Macao's gaming industry in promoting local economic development. Firstly, the literature research method is used, which is done by reading academic literature, industry reports and government statistics at home and abroad on the economic impact of the gambling industry, industrial development, policies and regulations. Then a large number of statistical data of Macao's gambling industry and related industries from Macao Government Statistics and Census Bureau are collected, including gambling revenue, tourism data, employment data and so on in order to analyze the specific contribution of the gambling industry to GDP growth, job creation, industrial drive and other aspects.

4. RESULTS

4.1. The Contribution To Local Economy

As we mentioned that the gambling industry occupies an important position in the economic system of Macao, it must make contributions to local economy in various ways.

4.1.1. Dramatic revenue

It is known that the gambling industry has provided dramatic financial revenue for the local government, so that it can support public services, infrastructure and social welfare security.

Table 1. Macao’s annual gambling revenue and GDP (in millions)

Year	Gambling Revenue (MOP)	GDP (MOP)	Proportion
2005	49597.00	96872.00	51%
2006	58527.00	118338.00	49%
2007	84976.00	147382.00	58%
2008	111012.00	167760.00	66%
2009	121403.00	171647.00	71%
2010	190621.00	225051.00	85%
2011	270113.00	297347.00	91%
2012	306487.00	34381800	89%
2013	362750.00	411865.00	88%
2014	353645.00	442070.00	80%
2015	232951.00	362641.00	64%
2016	228832.00	360344.00	64%
2017	267862.00	404381.00	66%
2018	304185.00	445527.00	68%
2019	293380.00	444540.00	66%
2020	61285.00	202471.00	30%
2021	88274.00	247926.00	36%
2022	43528.00	201623.00	22%
2023	185169.00	369328.00	50%

In Table 1 above, we can see mostly the gambling revenue accounts for at least half of GDP in each year, especially in 2011 the proportion of gambling revenue reached the peak, which was about 91% of GDP. However from 2020 to 2022 it accounted for less than 40%, this was due to the outbreak of Covid-19.

4.1.2. The coordinated development of related industries

(1) Tourism industry

The thriving development of the gambling industry has injected vitality into the tourism industry.



Figure 3. The amount of tourists to Macao

By comparing the trend in Figure 1 with that in Figure 3, we can find that before the outbreak of Covid-19, with the development of gambling, more and more tourists from all over the world are attracted to Macao. As Macao belongs to China, most tourists should be from mainland China, in mainland China, during the holidays especially the Spring Festival and the National Day Golden

Week, the Macao tour routes launched by major travel agencies in the mainland are highly favored, therefore a great number of tourists rush into Macao with the vision of Macao's gambling and entertainment. Macao is known as the "Monte Carlo of the East" which should be the first reason why gambling can promote tourism. Secondly as we know gambling is illegal in mainland China, therefore few people from mainland China can have access to gambling, but in China Macao is the only region where the gambling is legal, which may attract tourists from mainland China to visit Macao's gambling houses with an eye-opening mindset. The development of modern technology promotes Macao's gambling industry by innovating gambling means, projects and tools, making gambling with high-tech color to enhance entertainment and interest. Furthermore with the continuous development of China's economy, the national income level and the consumption power has improved dramatically, many mainland residents have enough funds to go to Macao to enjoy the excitement and fun of gambling.

(2) Hotel industry



Figure 4. The amount of hotels in Macao

The development of tourism has led to a soar in the number of overnight visitors to Macao, which stimulates the development of the hotel industry therefore more and more hotels should be built which is shown in Figure 3. In order to satisfy the different needs of tourists, Macao has built a diversified hotel system covering high-end luxury, mid-end comfort and economy. Especially the high-end hotels provide gaming tourists with the customized services and ultimate accommodation experience, which will attract them to stay longer and increase their consumption, the high-end hotels usually have unique architectural style, rich entertainment facilities and high-end brand image, which become an important attraction for Macao to attract tourists. In addition, many hotels are directly connected to the casino, providing convenient gambling services.

(3) Catering industry

The gambling industry attracts tourists from all over the world will also boost the development of catering industry which can be shown in the Figure 5 below, according to the statistics from Macao government, we can find that the amount of catering shops, take-out and deli stalls increased, especially the take-out and deli stalls soared dramatically from 2019 to 2020. Why the catering industry can be developed?

From Macao itself, Macao's food culture is unique and charming, it blends the essence of traditional Chinese food with Portuguese flavor. Macao's special cuisine is not only popular with tourists, but also with local residents, in the streets of Macao especially the Guanyai Street, you can see restaurants, shops and food stalls selling gourmet everywhere younger tourists will be appealed.

On the other hand, the vigorous development of the gambling industry has also boosted the catering consumption greatly. With the increase of tourists and gambling customers, the demand for catering

services has also increased, so that the diversification of Macao's catering industry has been rapidly developed. The casinos also have restaurants which are diversified to meet the taste needs of foreign tourists in different regions, they provide gamblers with high quality catering services, so that gamblers can soothe their body and mind to maintain their best condition.

Besides, Macao usually has regular food festivals, during the food festival, major restaurants and snack stall make a variety of food for tourists to taste and buy. tourists enjoy the happiness brought by food, which will bring considerable benefits to Macao's catering industry.

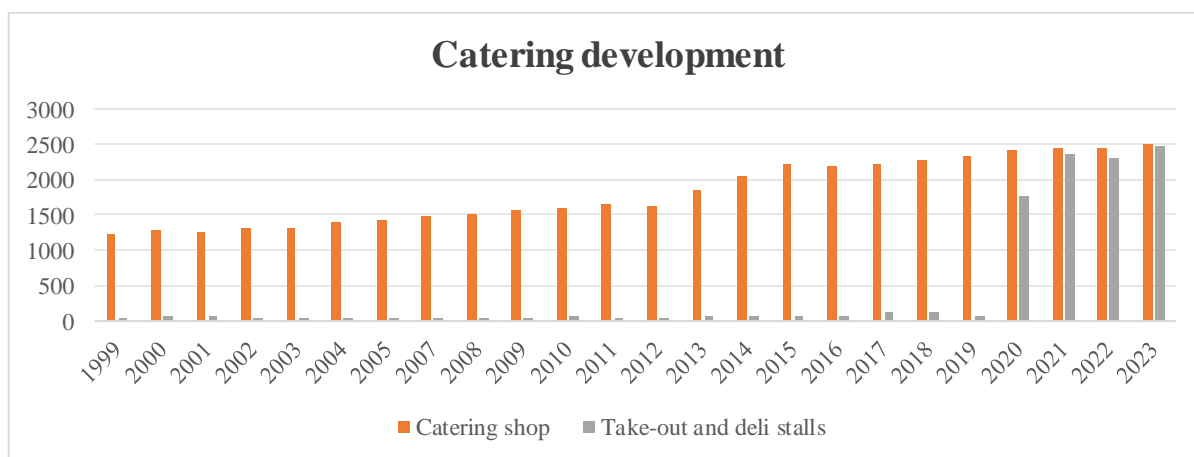


Figure 5. The development of catering in Macao

(4) Retail industry

When tourists go to a place for travelling, they usually have an eager to go shopping, so if they come to Macao, the retail industry must be grown. The shopping malls in Macao usually have some of the world's best-known brands, including fashion, jewelry, watches high-end skin care products and so on. Like Western countries, Macao's shopping malls always have promotional season, such as "Black Friday" and "Macao Shopping Festival", during the period, the stores are crowded, tourists are full of bags and bags. It is said that, the proportion of tourists' shopping consumption in the total tourism consumption is still rising from year to year, therefore the retail industry has become one of the key driving forces for the growth of tourism revenue, and helps Macao to build a comprehensive tourist destination image containing gambling, leisure and shopping.

(5) Entertainment industry

Macao takes advantage of the peak of the rapid development of tourism, and begins to build entertainment venues such as Macao Galaxy Arena, Star Arena and so on, each year many concerts, stage plays, sports and other performances held in Macao attract tourists to come, the tickets' revenue generated are fairly considerable. In addition, the diversified business strategy of gambling enterprises has also made great contributions to the entertainment, nowadays the gambling industry is no longer limited to traditional gambling business, it also incorporate elements such as entertainment performances, art exhibitions, and cultural festivals. For example The "Water Dance Room" performance held in Macao City of Dreams attracts thousands of audiences every night. Audiences spend money not only in visiting the performance but also in the surrounding dining and shopping areas, forming a complete consumption chain, greatly enriching tourists' experience, extending their stay time, which will continue to inject vitality into entertainment consumption.

(6) Financial service industry

As we know, gambling industry always involves high levels of trading and capital flows that brings financial services a huge market. Financial institutions such as banks, insurance companies, fund companies, trust companies have benefited from the gambling industry.

4.1.3. Infrastructure construction

As we have mentioned that the development of the gambling industry has led to the prosperity of the tourism industry, therefore the hotel industry, entertainment industry are also grown, so more hotels, casinos or theaters need to be built, as we have shown in Figure 4, more and more hotels were built after Macao's return to China. So a great amount of land and building resources were required. Therefore the Macao's government needs to keep investing in new infrastructure projects, such as hotels, shopping malls and entertainment facilities to promote the development of local infrastructure construction.

Then it is also necessary to invest the surrounding infrastructure, especially the improvement of transportation infrastructure such as the Hong Kong-Zhuhai-Macao Bridge, the high-speed rail network and the Macao light rail, so as to enhance the penetration rate of Macao in the mainland and attract more tourists.

4.1.4. Job opportunities creation

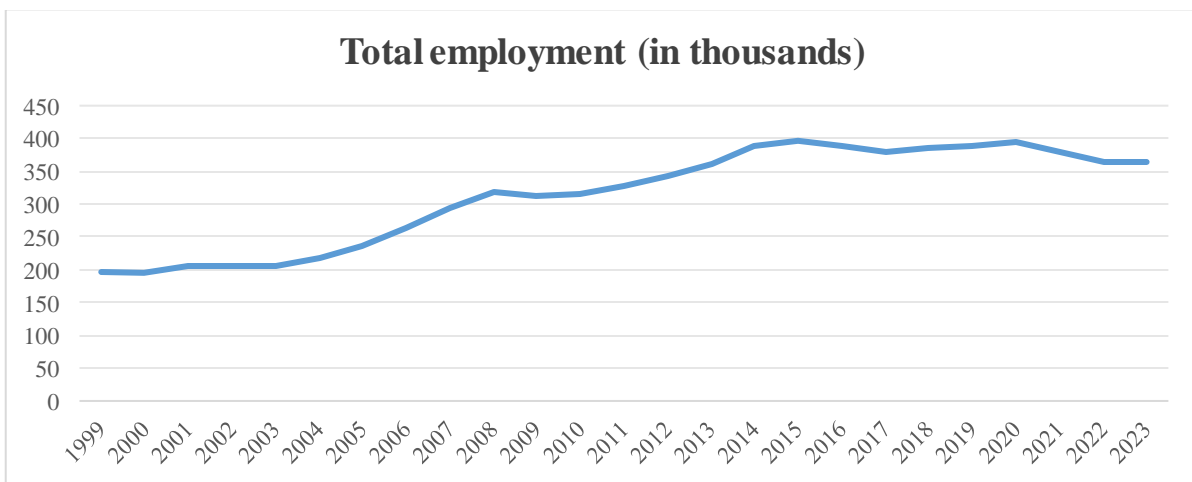


Figure 6. Total employment in Macao

According to the statistics from Macao's government, the total employment in Macao had an upward trend in general from 1999 to 2023. This is because the gambling industry also plays an important role in job creation, the gambling industry provide a wide range of employment opportunities for local residents, and keeps maintaining social stability and improving residents' living standards.

(1) Direct employment

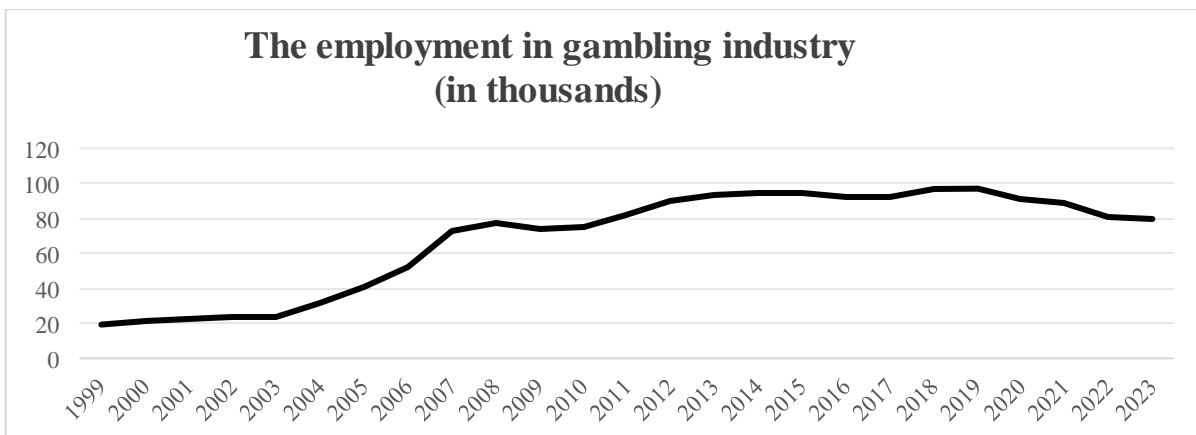


Figure 7. The employment in gambling industry in Macao

The Figure 7 above shows that among the total employment, the number of people joining in the gambling industry was also increasing year by year. Gambling companies cover a variety of jobs

from front-line service to high-end management. Casino operations usually require a large number of professionals, such as safe guards, dealers, casino managers and so on. The security personnel need to patrol the casino to ensure order and safety, monitor gamblers' behavior to prevent them from cheating and ensure the fairness of the game, they should be able to deal with various emergencies. Security personnel also need to deal with tourists' problems, for example discouraging the behavior of taking photos or videos in the casino. The dealers are regarded as the core service personnel of the casino, their daily job are related to host all kinds of gambling games, and their professional operation skills and good service attitude are the key to attract gamblers, such a job is usually welcomed because the entry requirement is low, and the salary is relatively favorable. The casino managers' main job is coordinating the daily operation of the casino, personnel scheduling, customer relationship maintenance and so on, if a person want to apply for the casino manager, the management skills and industry experience must be required.

(2) Indirect employment

As we have analyzed that the boom in the gambling industry has led to the development of a series of related industries, thus creating more job opportunities. Firstly, it is no doubt that the development of gambling industry promotes tourism, we have already compared Figure 1 and Figure 3 and found that as the gambling industry expanded, more and more tourists came to Macao.

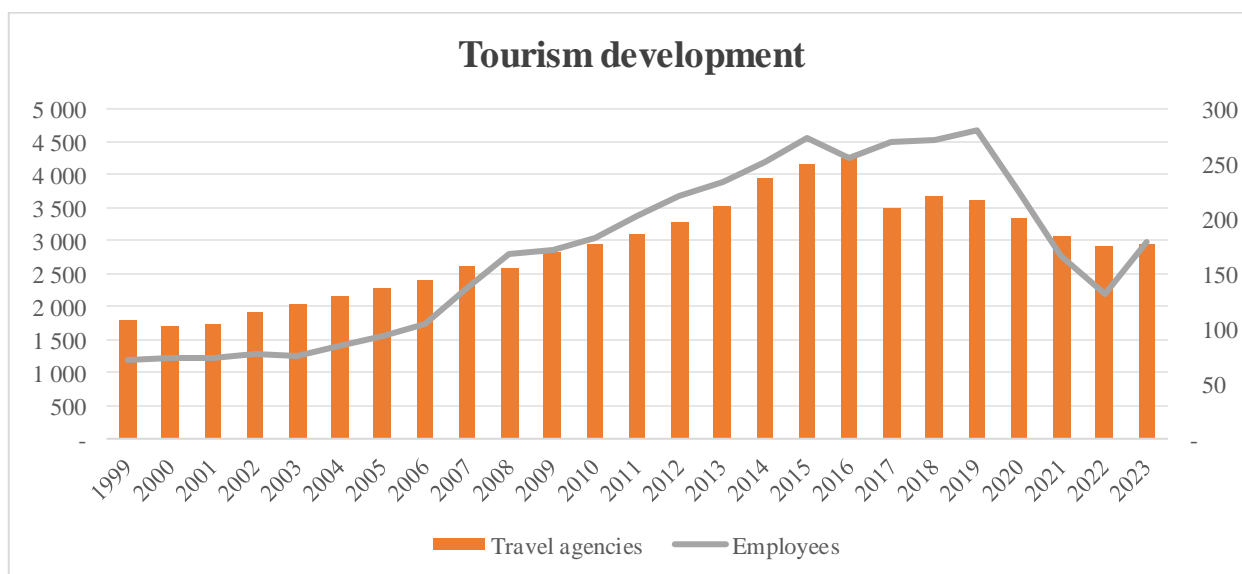


Figure 8. The development of tourism industry in Macao

By referring to the statistics from Macao Government Statistics and Census Bureau shown in Figure 8, we can find that as more and more tourists were attracted to Macao, the amount of travel agencies increased year by year which provided more job opportunities, therefore more unemployed people were attracted, rose the amount of employees in tourism. However because of the Covid-19 some travel agencies shut down or even closed, resulted in a significant decline in employees. Then the hotel industry is developed with the increase in tourists or gamblers, and large casino resorts often support ultra-luxury hotels. Positions like room service, catering and reception, every link needs a large number of labor, providing local residents with a variety of positions such as hotel butlers, chefs, bartenders, front desk attendants and so on. Then, tourism industry is also highly related to the gambling industry. Jobs like tour guides, tour bus drivers and travel agency staff are in great demand due to the increase in tourists. The retail industry can offer more job opportunities as well, positions such as shopping guides, cashiers, and luxury salesmen have emerged in order to meet the tourists' shopping needs. In short, the amount of indirect employment driven by the gambling industry is several times than that of direct employment. They has built a huge employment ecosystem.

4.2. Potential problems

Although there is no doubt that the gambling industry has brought many benefits to Macao's economy, it cannot be ignored that some potential problems have also arisen.

4.2.1. Gambling addiction

Gambling addiction is harmful to both individuals and families. If a family member is addicted to gambling, it is difficult to control himself and invest a large amount of money in gambling, which will result a sharp deterioration of the family financial situation therefore the family will be saddled with heavy debts and even face bankruptcy crisis, their daily livelihoods are in trouble and the quality of family life must be plummeted. In terms of family relations, the trust among family members collapses which will lead to divorce, and the children's growth lacks care and guidance makes their serious psychological trauma. However some teenagers even contact with gambling because of the influence of the family gambling atmosphere, that may bring dangers for the society in the future.

4.2.2. Criminal activities

Behind the prosperity of the gambling industry, it is possible that the criminal activities will appear, which brings challenges to social security. Firstly the economic crimes like illegal lending and money laundering will appear, criminals usually target the capital needs of gamblers and provide illegal loans with high interest, once gamblers are unable to repay, they will start violent collection and gamblers' personal safety will be threatened. Money launderers take advantage of the complexity of gambling transactions and inject illegal gains into gambling funds, to bleach black money through betting, exchanging chips, it is resulted that the financial order will be disrupted, the health of the economy will be eroded.

Besides economic crimes, theft, fraud may occur as well. Some criminals target the casino winners, and carry out theft and robbery after they leave the casino, which causes damage to the personal property safety of tourists and gamblers. In addition, the online fraud is also relevant to gambling, such criminals usually trick people into betting and they defraud money from victims by fake gambling websites, "gambling arbitrage" scam and other means.

4.2.3. Employment imbalance

As we mentioned before, the gambling industry has solved the employment problems by providing a wide range of positions for local residents. But the problem is that, in comparison with other industries, the gambling industry's job requirements for work experience and education level are low, however the salary is fairly high, which should be the main reason to attract human resources to join the gambling industry.

Table 2. Employment in Macaco (in millions)

Year	Total Employee	Gambling industry employees	Proportion
1999	196.1	19.3	10%
2000	195.3	21.5	11%
2001	204.9	22.4	11%
2002	204.9	23.5	11%
2003	205.4	23.9	12%
2004	219.1	31.3	14%
2005	237.4	40.8	17%
2006	264.2	52.5	20%
2007	293.0	72.7	25%
2008	317.1	77.4	24%
2009	311.9	73.7	24%
2010	314.8	75.4	24%
2011	327.6	82.0	25%
2012	343.2	89.5	26%
2013	361.0	93.4	26%
2014	388.1	94.0	24%
2015	396.5	94.2	24%
2016	389.7	92.7	24%
2017	379.8	92.3	24%
2018	385.4	96.4	25%
2019	387.8	97.0	25%
2020	395.1	91.3	23%
2021	378.4	89.1	24%
2022	364.7	80.6	22%
2023	365.2	79.9	22%

The statistics in Table 2 above is from Macao Government Statistics and Census Bureau, it shows us that until 2023 the gambling industry's employment has accounted for more than a fifth of Macao's total employment for more than 10 years. In future because of gambling industry's high salary and low entry barrier, its employment must continue growing, more workers from other industries will be attracted. Such a result not only leads to the reduction of labor force in other industries, but also hinders the long-term development of other industries.

4.2.4. Single industrial structure

It is no doubt that the gambling industry is the core pillar of Macao's economic development. But nowadays Macao's economy has been heavily dependent on the gambling industry for a long time. As we have found in Table 1 that except the period started from 2020 when the Covid-19 spread, the gambling revenue accounts for more than half of GDP in each year, the more exaggerated was that from 2010 to 2014, the annual gambling revenue even accounted for more than 80 percent of annual GDP.

Over-reliance on gambling has created some problems. Firstly, Macao's economy was vulnerable to external shocks, such as the mainland's anti-corruption campaign and the sudden global Covid-19 pandemic, which hit the gambling industry hard and caused the economy to hit rock bottom. Secondly, this economic model also limits the survival and development space of small and medium-sized enterprises in Macao, because the high investment and heavy capital of the gaming industry has severely compressed the resources of other industries, as we discussed before the labor in other industries were attracted to gambling industry and caused employment imbalance. On the other hand

although the gambling industry has made Macao rich, it has also pushed up prices and housing prices, increasing the living cost and housing pressure of ordinary people.

5. DISCUSSION

Based on the above, we draw the conclusion that Macao's gambling industry has caused a variety of problems, so appropriate measures should be taken to address different problems

5.1. Based on Gambling Addiction

5.1.1. Rational gambling

In the face of the problems of gambling addiction and crime arising from the gambling industry, the Macao SAR government and gambling enterprises should be responsible for promoting the concept of rational gambling, and adopting a series of measures to guide the public to rationally participate in gambling activities.

On the one hand, the government can show the harm of gambling addiction with vivid cases to enhance public awareness through TV, radio, newspapers and other mainstream media. The education bureau can promote rational gambling by holding special lectures and seminars in communities and schools, invite experts and rehabilitated people to share their experiences, popularize gambling knowledge and risk prevention skills to different groups especially young people, so that they can establish a rational concept of gambling from an early age. In public areas like subway stations, bus stations, the eye-catching posters can be used to remind the public that gambling is risky, betting needs to be cautious so that a rational gambling atmosphere can be created.

On the other hand, the gaming companies should also respond positively by integrating rational gambling into their daily operations, they can display warning signs and brochures to inform gamblers of odds and channels for help. Charge officers and service personnel inside the casinos should be trained to identify problem gamblers, and provide psychological counseling or guidance to professional institutions in a timely manner once abnormalities are found. It is necessary to use technical means to set betting limits for gamblers, loss warning, to prevent excessive betting.

In short, rational gambling can create a healthy social ecology for the sustainable development of gambling industry.

5.2. Based on Criminal Activities

5.2.1. Strengthening the supervision

Firstly the regulatory authorities should be responsible for increasing the frequency of daily inspections of casinos, they should not only check the legality and safety of gambling facilities, but also supervise trading behaviors and personnel activities in casinos. For example, they need to check whether the source of funds of gamblers are legal, and whether there are illegal loan officers operating in the gambling premises. At the same time, they can encourage the staff of gambling places and other informed persons to report illegal and criminal acts by establishing a reward system for reporting.

Then the gambling enterprises and casinos must be required to establish the internal risk prevention and control mechanism, and submit risk assessment reports and compliance management reports to the regulatory authorities regularly, so that the regulatory authorities can grasp the operation and risk status of the enterprises in a timely manner.

5.2.2. Improving the legal system

Although there exists a legal framework for the gambling industry in Macao at present, however with the development of the gambling industry, the methods of crime are also evolving, so the law needs to be updated to adapt to the new situation.

On one hand, for the offline gambling, some criminals may use gambling places to commit money laundering crimes, for this behavior a variety of money laundering means and the corresponding legal responsibility should be defined clearly, specific sentencing standards should be stipulated. At the same time, gambling intermediaries sometimes have illegal business activities, such as soliciting gamblers illegally, providing usury and so on, for such a phenomenon detailed legal provisions and the corresponding penalties should be formulated clearly.

On the other hand, with the development of online gambling, it is necessary to formulate legal provisions for online gambling crimes, clarify the establishment and operation of online gambling platforms and the legal responsibilities of participants, and make clear provisions on issues such as the jurisdiction and evidence collection of cross-border online gambling crimes, in order to ensure that the law can effectively combat new gambling crimes.

5.3. Based on Imbalanced Employment

5.3.1. From the government's perspective

The government should formulate labor distribution policy which is to regulate the size of the labor force in the gambling industry, such as setting a ceiling on the proportion of new employees in the gambling industry every year so that excessive absorption of labor force in the gambling industry can be avoided.

The government should increase the support to other industries, by offering fiscal subsidies, tax relief and so on, to support the development of other non-gaming industries, therefore the profitability and competitiveness of these industries can be improved, so that the non-gaming industries will have the ability to improve employee compensation and welfare levels, so as to attract more labor.

The government should also further improve Macao's social security system to ensure that workers in various industries can enjoy fair and perfect social security, so as to reduce workers' concerns about industry stability and make them more willing to return to non-gaming industries.

5.3.2. From the corporate perspective

Non-gaming enterprises should focus on improving the working environment and creating a good corporate culture. Perfect staff promotion mechanism should be established, in addition more career development opportunities and training resources should be provided, so that the sense of belonging and loyalty of employees will be enhanced.

5.4. Based on the Single Industrial Structure Problem

5.4.1. Industrial diversification

In order to get rid of the predicament of over-reliance on the gambling industry, industrial diversification is necessary. Macao can take advantage of its favorable conditions to develop some new industries such as cultural and creative industry, exhibition industry, and traditional Chinese medicine industry.

As we know Macao has many world cultural heritage sites, as a former Portuguese colony Macao also carries a variety of cultural customs. So the government can develop cultural and creative industry by setting up cultural and creative industry parks, holding cultural and creative activities to attract creative talents and enterprises to settle in. The "Macao Cultural and Creative Industry Series

Subsidy Program" issued by the Macao SAR Government can also promote the development of cultural industry effectively.

For the exhibition industry, the government should increase investment in exhibition infrastructure, and build more modern and multi-functional exhibition venues. At the same time, preferential policies will be formulated to attract internationally renowned exhibition brands to settle in Macao, and local enterprises will be encouraged to hold various exhibition activities, so as to build Macao into a regional exhibition center.

After Macao's return to the motherland, the government implemented a series of measures to support the development of the Chinese medicine industry in Macao, providing a new platform for the development of the Chinese medicine industry in Macao. Therefore, Macao should take advantage of this opportunity to develop the Chinese medicine industry actively to promote innovative research and development of traditional Chinese medicine, and enhance Macao's international influence in the field of traditional Chinese medicine.

5.4.2. Strengthening regional cooperation

Macao needs to actively integrate into the construction of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), to strengthen industrial cooperation with mainland cities such as Zhuhai, Shenzhen, and build cross-border industrial parks jointly to promote industrial integration and development.

As a former Portuguese colony, Macao must retain some Portugal culture. Macao should deepen the economic and trade cooperation with Portuguese countries, strengthen cooperation with Portuguese countries in the fields as trade, investment and culture, and promote bilateral economic and trade exchanges. At the same time, we should make full use of the cultural ties between Macao and Portuguese countries to develop tourism and other industries for Portuguese countries and expand Macao's international market space.

5.4.3. Gambling industry diversification

From the gambling industry itself, because of the outbreak of Covid-19 the gambling enterprises' gambling revenue showed a cliff decline, therefore many casinos were shut down at that time. Gambling companies need to expand into non-gambling areas, the government can encourage gambling enterprises to invest in the construction of culture, entertainment, leisure and other comprehensive tourism projects, combining gambling with tourism, culture and other industries, so that the added value and comprehensive competitiveness of the gambling industry can be improved.

6. SUMMARY

In this paper, we analyzed of Macao's gambling industry in-depth, we reveal its key position and multi-faceted influence in the course of Macao's economic development clearly. As a pillar industry, the gambling industry has long contributed a huge amount of revenue to Macao, it is the core source of government public services, infrastructure and welfare security, and lays a solid foundation for Macao's urban construction and social development. In the field of employment, the gambling industry creates a large number of service jobs and indirectly drives the prosperity of upstream and downstream industries such as tourism, hotels and catering, builds a huge employment ecology, and becomes a key force to stabilize society and improve residents' living standards. The gambling industry is closely linked with the tourism industry, and the number of tourists visiting Macao has increased rapidly with the prosperity of the gambling industry. The influx of tourists has promoted the comprehensive development of Macao's consumption in the hotel industry, catering industry, retail industry and other fields, and promoted the transformation of Macao into a comprehensive tourist destination.

However, the development of the gambling industry has also resulted in many social problems, such as the economic difficulties of families and the breakdown of relationships resulted from gambling

addiction, the breeding of criminal activities brings threat to social security, the high salary and low entry requirement of the jobs provided by gambling industry attracted excessive workers resulting in the overall employment imbalance and the over-reliance on gambling industry of Macao's economy. In this regard, the government and enterprises should cooperate with each other to take measures to respond actively.

The concept of rational gambling should be promoted to guide the public to rationally participate in gambling activities. Supervision should be strengthened by regulatory authorities and gambling enterprises, and the legal system should be updated regularly to avoid criminal activities. The government and enterprises should work together to solve the imbalanced employment, let more people to work in other industries. To solve the problem of the gambling industry's dominance, industrial diversification strategy is quite necessary. In addition, Macao needs to strengthen regional cooperation with other cities in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). If possible, the gambling enterprises in Macao should try to expand into non-gambling areas.

Looking to the future, Macao's gambling industry will continue to inject impetus into Macao's economic prosperity under the policy's guidance and the market's drive, but it also faces many challenges and uncertainties, so sustainable development strategies should be sustained. In the economic field, it is necessary to optimize the industrial structure constantly to avoid over-reliance on the gaming industry. From the perspective of society, the concept of rational gambling should be deeply rooted in people's hearts, and the education and publicity of gambling and psychological counseling should be strengthened to prevent social problems such as gambling addiction and crime. In addition, gambling enterprises need to respond to the global sustainable development strategy actively by starting green operation in the future, which means casino facilities should adopt energy-saving and environmental protection technologies so as to build a green and low-carbon tourism city, and create a more brilliant future for Macao.

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