
Economic Implications to Stakeholders in Cyprus from Future Virtual Sports Regulation

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Abstract Attracting new customers is pivotal for the strategy of profit-driven Organisations. Modern types of betting have recently grown exponentially. One explanation is that the introduction of innovative games aligns with this strategy. This study has applied qualitative analysis to explore the economic performance and success from the introduction of Virtual Sports (a new form of innovative product in the betting sector) in European countries. We will then enquire whether conditions are now favorable for amending the betting legal framework of Cyprus to create conducive to innovation adaptations. It is thought that such a structural change may positively influence returns for the betting industry; enhance levels of employment to relevant and interconnected sectors of the economy; assist the government sector which through tax policy may improve revenues and exploit other resources for more sustainable public expenditures. Results show that where innovation and integration of Virtual Sports took place, the business industry stakeholders were positively influenced in terms of performance, taxes, market share, customer satisfaction and technological attractiveness.

Keywords EU betting industry, innovation, virtual sports, Gambling Regulation Authority, profitability, harm protection

1. Introduction

Gambling is a historical and social phenomenon whereas the evolution of illegal gambling and its extensive impact on society, brought about its legislative regulation as a form of protecting people (Catarino et al., 2020). Furthermore, the regulation of betting activities,

allows to channel demand towards the authorized and licensed supply and leads to adapting this supply to the markets size. Direct ban or lack of regulation leads to loss of revenue (Catarino et al., 2020). Therefore regulating and supervising gambling is crucial both for the market and for combating and preventing unlawful acts purposes and importantly to prevent health problems such as problematic use and addiction.

The Betting Industry in Cyprus was formally regulated by law in 2012 (L. 106(I)/2012). This act, established the National Betting Authority (NBA), a powerful independent body, entrusted by the government and parliament with the competencies of drafting relevant legislation, monitoring implementation in all provisions including licensing of companies and of the different types of betting. More specifically, the NBA is the leading legal public entity for the regulation, supervision, and monitoring of the betting activity. The crucial point for the Betting Industry in Cyprus was year 2012, which led to an “increase of gambling availability...with more than 506 betting stores” already in 2013 (Neophytou K., et al., 2018). On March 2019, the Betting Law (BL) 37(I)/2019 was introduced replacing the initial Law. The new law was aspiring to enhance the Betting Market. The Betting Law currently, allows for two forms of betting services. Broadly seen, these are Class A which involves land-based services and Class B which encompasses all forms of electronic (online) betting. Online betting was regulated in 2016, four years after the first Betting Law was at place (NBA, 2016-19 Progress Report). Class A licensed Bookmakers currently comprise of six companies and Class B of twelve. Many of the aforementioned companies are registered international entities which now also have a local registration, confirming international business interest for the Cyprus betting sector. The number of licensed premises (representatives of the Bookmakers) in the island is around five hundred. The importance of the industry can be also depicted when income, profit distribution and tax are considered. Indicatively, for years 2018-2021, comprehensive income from betting exceeded €2bn, profit distribution surpassed €1.6bn and government benefitted from betting taxation with around €35m (NBA, Gambling Industry Statistics, 2021). These figures best demonstrate the importance and dynamic character of the industry which constitute the basis for this thesis.

1.1 The Gambling sector in the context of the EU and Related Technology Development

Cyprus is a member state of the European Union (EU). Historically, during the European Council Committee of the 11th and 12th of December, 1992 in Edenborough, Member States of the European Union agreed not to pursue harmonization of gambling activities at a European level. There is no, therefore, sector-specific EU legislation in the field of gambling services. EU countries are virtually autonomous in how they organise their gambling services, as long as they comply with the fundamental freedoms established under the TFEU, as interpreted by the Court of Justice of the EU.

In 2019, prior the COVID-19 pandemic restrictions, the total European gambling market was worth €98.6bn. Online gambling accounts for €24.5bn and land-based gambling for €74.1bn in gross gaming revenue. Estimates point at the direction that 26.5% of activity took place in grey and black markets (H2 Gambling Capital, 2020).

Inside and outside the EU, some governments and betting stakeholders went beyond traditional sports events and activities to new forms such as Virtual Sports, electronic sports, competitive computer gaming, gaming, and cybersports which are common synonyms for eSports (Rogstad, 2020). These forms have grown exponentially during the recent years. The main characteristics that distinguishes them from traditional sports betting is that the primary aspects of the sport are facilitated by electronic systems, “mediated by human-computer interfaces” (Hamari et al., 2017). The success of virtual sports events during the COVID-19 pandemic, demonstrates that “sports fans are ready to consume sports in new, innovative ways” (The Nielsen Company, 2020). Virtual sports can also be used as a marketing tool, reaching new and younger audiences and the post COVID-19 market is likely to attract more investment and commercial partners (Rogstad, 2020). For any profit driven firm, a part of its strategy is to acquire new customers, either from other gambling operators or new customers altogether and the introduction of innovative games aligns with this goal (Mc Mullan and Kervin, 2011). Additionally, advertising and marketing strategies have become integral parts of the business while bookmakers are developing innovative and state-of-the-art tactics to cross-promote and converge separate markets, targeting new gamblers, that being conventional betting and new forms of betting (Lopez-Gonzalez, & Griffiths, 2017). These may positively influence income for

the betting industry; employment, relevant and interconnected sectors of the economy of a country, tourism and governments which through tax policy increase their revenues and their resources for more sustainable public expenditures (Marionneau and Nikkinen, 2020). Betting Regulators such as the UK Gambling Commission confirm that “Innovation in product design with a clear focus on the licensing objectives, helps an industry embrace new technologies and adapt to societal changes to the benefit of consumers” (Gambling Commission UK, 2020).

1.2 Problem Statement: Enhancing sustainability of the Cypriot betting sector

Companies and industries that follow international good practices and adapt to innovation, may enhance their strategic capabilities and therefore contribute to their long-term survival and competitive advantage (Johnson et al., 2014). An analogy of this argument may stand for countries. If an industry of one country (betting) does not adapt to innovation, another country which introduces technological innovation, for example Virtual Sports, will become more attractive to potential consumers and increase its international competitive position. Strategic capabilities are of value when they take advantage of opportunities and neutralise threats, provide value to customers and are provided at a cost that still allows an organisation to make an acceptable return (Barney, 1991). Technology development and even a company’s infrastructure are support activities to the value chain for a product or a service in order for the firm to succeed sustainable competitive advantage. In this sense, introducing innovation to the Cypriot legal framework and to the organisation of betting stakeholders allows for better performance. It identifies new profit pools and enhances strengths as opposed to weaknesses, particularly during pandemic restrictions vis a vis competitor. Relying only to threshold capabilities, that is relying solely to traditional forms of betting, may put companies’ sustainability into danger since international competition and atypical or illegal betting have already incorporated novel forms of gambling. *Therefore, a strategy of modernization of the legal framework in Cyprus towards more novel forms of betting may be of the utmost value.*

1.3. Research Question(s)-Aim: The relevance of Virtual Sports to the Betting Sector Sustainability

This article investigates the possible economic impact of a future regulation and introduction of

Virtual Sports (VS) within the Cypriot betting framework.

The relevance of the NBA strategy towards modernization and adaptation to international best practices in innovation, is explored

The main research question discusses the extent of positive effects of technological innovation in the gambling industry and the economy at large.

Virtual sports, are an exemplary recent innovation, regulated in various EU and other countries.

To introduce VS to the Cypriot economy, an assessment from business perspective must be employed first.

1.4.Methodology

The author reviews crucial turning points from the historical background of the betting industry in Cyprus and the EU.

Comparative analysis of modern adjustments in the betting market in Europe is carried out. The impact of VS to respective economies and the gambling environment will be weighted. Some recommendations for the future are concluding the article.

2. Gambling Definition and relation to Business

Gambling includes any game of chance that involves a monetary wager; such settings comprise sports betting, casino games, lotteries, bingos, and so forth (Scott et al, 2019). For the purposes of the Betting Law (37(I)/2019) of Cyprus, 'betting' encompasses all betting activities carried out in relation to sporting events in which the contestants are natural persons or other events in which natural persons participate by exercising physical strength and utilising skills, and which events do actually take place. Therefore, it should be noted that Virtual Sports, which is an event not actually taking place in real life, are not regulated despite the fact that a series of other countries and continents of the globe accept such Sports as legal.

2.1. The roadmap and the current situation in the Betting Market in Cyprus

For a business to be successful, a level of its strategy must be concerned with the way it pursues to compete successfully in the particular market. An analysis of the macro-environment of organisations in terms of political, economic, social,

technological, ecological and legal factors allow for different scenarios. For the purposes of this study, Porter's five forces analysis is applied in order to define the betting market in Cyprus and to identify their potential for change, more specifically through the further introduction of innovation, and sports games and different types of bets such as Virtual Sports. The five forces consist of the threats posed within an industry, namely by competitive rivalry, powerful buyers, powerful suppliers, potential new entrants, and substitute products (Dobs, 2014). These forces influence at the end, the ultimate profit potential in the industry as demonstrated by Porter (1980). Assessing the opportunities and threats in the organizations external setting shapes organizational strategy (Bruijl, 2018).

A market is a group of customers for specific products or services that are essentially the same (Johnson et al., 2017). According to estimates, the gambling market of Cyprus is ranked tenth among all European markets in terms of largest average gambling spend per adult (H2 Gambling Capital, 2021, p. 13.). The development of the Betting sector in the island was indeed significant in the last years, as is evidenced in this project (Table 1.). Within three years' time, Gross Gaming Revenues increased by 75%. Profit margins almost doubled. Tax paid to government for gambling, increased by 60%, offering some validation to the argument that it is the "governments that get more addicted to the tax than the players to the games"(Phanner, 2010). This may be related to the regulation of electronic-online betting, which opened-up opportunities for companies to expand to new ventures delivering betting services to many homes and venues. Therefore, it can be argued that significant changes which introduce technological and innovative advances to the regulated betting industry may produce a chain of positive economic effects. In conjunction with the progress identified already, an improvement to the law (2019) included modification to the definition of betting so as to include cash-out, hence "adjusting the law to the current market needs" (National Betting Authority, 2020, p.22). It is moreover observed that in the course of years, fewer companies share more revenues. The tendency as far as Class A licensed bookmakers, is one of an oligopoly market situation like in Sweden where one company has the monopoly of various types of gambling while a number of private companies are also licensed (Håkansson et al., 2019). Oligopolistic, is the industry dominated by a few firms with limited rivalry and in which firms have power over buyers and suppliers (Johnson et al., 2017). As far as Class B licensed bookmakers, four more companies were

added to the licensed registrar of the National Betting Authority, perhaps as a consequence of the developing trend of online, electronic services. After all, the “advent of digital technology coupled with the enormous potential applications of the web, caused substantial changes in the global gambling industry” (Papanastasiou & Fourlas, 2016) and Cyprus was not in isolation. It is assumed that the entry cost is high for new potential entrants-betting firms. Competitive rivalry among existing stakeholders is uneven since one company (OPAP Ltd) holds a monopoly of some types of betting and lottery. Despite this background, the rest of the companies seem to be of close to equal size. Interestingly, in the online betting sphere, new entrants are now competing. It is assumed that differentiation among rival and competing forces within the market will increase if new types of sports games are regulated. Other countries and industries both in Europe and abroad have engaged in introducing innovation products to their respective markets, increasing competitive advantage in times when distance, online betting is a significant source of both entertainment and profit for companies.

2.2 The National Betting Authority

Competition and Innovation Strategy is the foundation of an operative business plan. A competitive strategy leads a firm to identify its industry niche and to understand its potential customers (Porter, 1980). There exist some basic businesses strategies “—differentiation, cost leadership, and focus—and a company performs best by choosing one strategy on which to concentrate” (Allen and Helms, 2006).

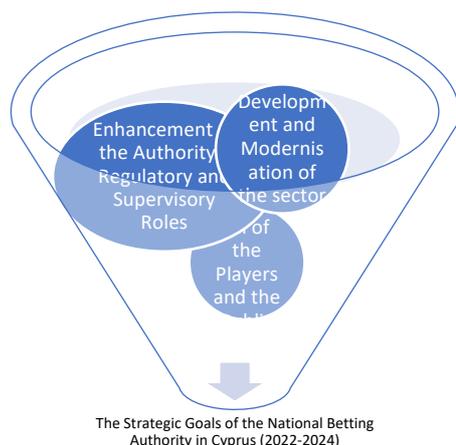
Table 1. Comparison of Financial Results and Quantitative Data of the Cypriot Betting Sector

JAN – MAR 2020		MAR 2017	
• Gross Gaming Revenue (GGR) of Class A and B €14.166.697	• Profit Margins 11.33%	• Gross Gaming Revenue (GGR) of Class A and B €25.286.982	• Profit Margins 21%
• Number of Class B licensed bookmakers 5	• Number of Class A licensed bookmakers 11	• Number of Class B licensed bookmakers 9	• Number of Class A licensed bookmakers 5
• Licensed premises 541	• Betting Tax 1.416.670	• Licensed premises 560	• Betting Tax €2.528.698

Table created by the author based on Financial Results and Quantitative Data released by the National Betting Authority

The bedrock for choosing the fit to purpose strategy is an outcome of an industry analysis, and of an analysis of the Independent Authority which sets the rules of the game, that is the National Betting Authority of Cyprus. In analysing the NBA’s strategy it is pertinent to identify that the concepts of the development of the economy and of innovation are laid down at the centre of the NBA’s mission and vision statement (NBA, 2021, p.7). More specifically the NBA strategy evolves around the statement “to adapt to innovation, rapid technological development and simplification of processes”. Therefore, since introducing new games may indicate adaptation to technology and innovation, it is rational to assume that Virtual Sports could be considered compatible to the NBA strategy (ibid). For instance, The Hellenic Gaming Commission (HGC), the mission of which is to be “responsible for the regulation, supervision and audit of gambling activities, carried out in the Greek Territory” and its vision focuses in making all games legal and safe and free from negative financial, legal and social impacts, has regulated Virtual Sports. The NBA mission also points towards combating and eliminating illegal gambling with various means. Regulating gambling and new types of betting may be expected to serve this purpose along with other policy measures, including policing (which is outside the scope of this study).

Figure 1. National Betting Authority’s Strategic Goals



Source: Authors own design based on the National Betting Authority. Strategic Plan 2022-2024 & Action Plan 2022

A closer look at the NBA document reveals that the pillar “Enhancement of the Authority’s Regulatory and Supervisory Role” evolves around the aims of reducing the operational costs of the stakeholders and of the application period improving also the functioning of the sector (p.13). Costs are also envisaged to be limited through preventive supervision and compliance. The second pillar, “Protection of the Players and the Public” offers a holistic perspective towards achieving this goal. It includes creating the appropriate conditions for the stakeholders to protect society from gambling related harms through “measures and policies”, methods, incentives, training, synergies. It also provides for proliferating awareness to the public and risk groups of possible threats through messages and campaigns, counseling, treatment and effective initiatives-programs for safer gambling. Hence, *innovation and technologically advanced new types of betting such as e-sports and Virtual Sports are not outright excluded from the scope and capability of providing protection to the public.*

The last pillar of the Strategy, “Development and Modernisation of the Sector” is heavily related to creating better economic conditions, enhancing competitiveness and therefore improving profitability of the sector which is currently envisaged by the NBA’s strategy to develop as an attraction of foreign investments and to excel as a prospective “international gambling hub” (p.16). The concepts of “research and innovation”, business operations and market development around the notion of “healthy competition” structure are business-related wordings which can be viewed as

creating a friendly to new ideas environment which embraces novel tools such as Virtual Sports.

2.3 Virtual Sports

It has been shown that the Betting Industry in Cyprus may successfully facilitate innovative products as part of its strategy. The pace of growth of the market was remarkable in the past years while international competition and technological advancement may indicate that it is currently high time for the Cypriot industry to exploit opportunities already tested in the EU and other market places. This part will examine the experience from innovative solutions such as Virtual Sports, which breakthrough in the international market.

Virtual reality refers to computer simulated three-dimensional interactive representation that allows almost total sensory immersion into an artificial environment (Gainsbury & Blaszczynski, 2017). The term was first coined by Lanier, in 1987 and is now increasingly applied across a host of disciplines and activities: entertainment, military, architecture, business, and health .

Virtual sports are computer generated games, where the development and outcome are decided by an algorithm, using random number generators (RNG). Programming the parameters of the algorithms depends on the skills of each competitor or team of competitors (for example teams are not equally standardized, which is the case in real life as well). The factor of randomness is also added; therefore, prediction of the outcome is difficult.

2.4 Changes in Betting Practices and Innovation

Some specific historically objective facts-developments converge decisively into the impressive market growth in the sector, leading into the development of Virtual Sports. These developments are interconnected and as Lopez-Gonzalez and Griffiths (2016) note, can be concentrated to the following parameters:

- The chronological and geographical globalization of sports markets
- The standardization, homogenization and numeric quantification of sports performances
- The rise in sports content mediation and the culturally dominant place it has gained in the aftermath and finally,

- The development of easily accessible, cost effective and constantly available personal communication technologies

Table 2. Virtual Sports are regulated in many European countries

COUNTRY	Authority for Digital Form	Authority for Land Base Form
DENMARK	The Danish Gambling Authority	
GREECE	Hellenic Gaming Commission	Hellenic Gaming Commission
ITALY	Agenzia Delle Dogane E Dei	Agenzia Delle Dogane E Dei
MALTA	The Malta Gaming Authority	The Malta Gaming Authority
NETHERLANDS		Gambling Authority
SWEDEN	Sweedish Gaming Authority	
UNITED KINGDOM/NOVELTY OR SIMULATED EVENTS	The Gambling Commission of Great Britain	The Gambling Commission of Great Britain

Source: Authors own calculations

Videogames, live betting and eSports influence all virtual sports providers in the development of their products. The majority of top providers use production techniques similar to those of the videogame industry for the development of their Enhanced technological capacity and the Internet, have significantly altered the industry’s product characteristics influencing users’ overall experiences (Gainsbury & Blaszczynski, 2017).

As noted by a top executive member of a company “innovation in Virtual Sports is a bit more than just graphic precision in order to match the expanding interest of the consumer for real-life sports”.

From the content presented insofar, and according to the head of technologies for an international provider, it becomes evident that the virtual sports market converges with the industry of electronic games (gaming) and with the development of actual sports, offering betting shops, online companies and platforms major opportunities to diversify their products and cope with the challenges of the new era.

2.5 Adaptation and modernization with revenue growth. The case of Denmark preventive measures

The digitization trend has stimulated a disruptive market for inventing and commercializing a broad scope of digital consumer services (Kamolsook et al., 2019). A study found that digital technologies augment the gambling industry in aspects of the product, service and operational structure and offer benefits and value creation to the sector (Liu et al., 2021). Many companies are now licensed worldwide. Virtual sports and betting supplier, Golden Race, has received certification as a

wagering B2B provider in South Africa for its online solution V4. Another example is Entain, the gambling operator previously known as GVC Holdings, which has agreed a deal to launch Inspired Entertainment’s range of virtual sports games. Companies come together designing the “newest products, a World Cup game and virtual in-play tennis”. Therefore, partnerships are identified between product/technology suppliers and providers to the market. Today, betting on virtual events has increased at a worldwide level, and “innovation and technical progress have significantly raised the complexity of some virtual betting products” (Gambling Commission UK, 2016). For instance, Virtual sports monthly total in the UK market peaked to £12.8m in 2020, right before the pandemic erupted. Interestingly, VS betting was higher to dogs racing betting in the UK for year 2020 (3.2% to 3.1%). As early as in 2015, studies estimated that this specific type of market would generate \$9 billion of revenue annually (Totally Gaming, 2015).

Many EU Member States, US states and countries from almost every continent have regulated the Virtual Sports market, at all levels. Table 2 showcases a number of countries which have licensed Virtual Sports betting services. Some of these countries have had a long tradition in the field while others have now developed a series of protective methods to avoid potential harm such as problem and pathological gambling. The protective measures commonly applied to the more conventional types of gambling have also been applied to Virtual Sports. Virtual Sports not only are regulated but as presented in the case studies below, also produce a series of important financial benefits for governments, providers and all parties concerned.

A great example of a country which regulates and allows Virtual Sports activity, is Denmark. Denmark’s gambling market is intensely regulated and monitored by the DGA (the responsible regulatory authority) which closely cooperates with all interested parties (Henningesen, 2019). The purpose of the betting law there is

- (i) To preserve the consumption of betting services to a medium or mild level,
- (ii) To protect young people and susceptible groups from being exploited through gambling or from developing a gambling addiction,
- (iii) To protect the players by ensuring that all betting activities are provided in a

fair, responsible and transparent way, and

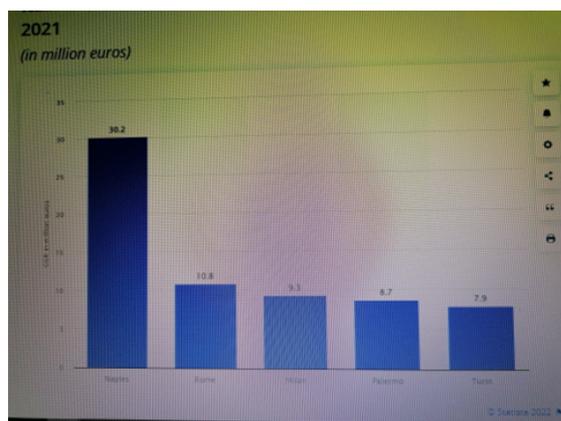
- (iv) preventing criminal activities related to betting.

As a result, this enforces a number of obligations to license holders. For example, betting services providers have the obligation of closely monitoring bettors' activities, offering periods of "cooling off". They must also provide access to a state register which includes those who are self-excluded ("ROFUS) and have a discretionary system which automatically inspects each player when trying to connect again. Within this protective system and through their inclusion to the legislation, Virtual Sports have found their place and are developing.

It is becoming evident that the states' path towards legislative adjustment to the sector's technological advancement, is ongoing. The aim is to achieve economic growth while protecting the society and the consumers. Betting activities related to Virtual Sports are currently available in the UK, Malta, Italy, Australia, Greece, Romania, Denmark, Sweden, Spain, as well as in other countries worldwide. Substantial revenue is gained both for regulators and governments.

According to the Gambling Commission, the UK has entered the Virtual Sports market immensely, and is showcasing an impressive upward trend.

Figure 1. Italian cities with the highest gross gaming revenue (GGR) from virtual sports betting in 2021 (in million euros)



Source: © Statista 2022

As demonstrated (Figure 1) gross gaming revenue (GGR) from virtual sports betting in 2021 in large Italian cities has been significant, ranging from 10.8% (Rome) to 30.2% (Naples). Further, Virtual Sports cash inflow for the years 2015 – 2018 in Italy can be described as impressively high. In addition to

this, Italy's tax revenue from betting activity has also increased significantly. According to the country's Office of the Parliamentary Committee for the Budget (2018), Virtual Sports are responsible for more than 2% of the national tax revenue. These increases go hand in hand with the total increase of cash inflows produced by the Italian betting market: according to the same study, the market's cash inflows increased by \$20 billion between years 2015 to 2018. Another important finding is that bettors' financial losses remained stable for the years 2017 and 2018.

3. Discussion

Evidence from the countries examined lead to some preliminary conclusions in regards to the regulated introduction of Virtual Sports. It appears that where innovation and integration of Virtual Sports took place, the business industry stakeholders were positively influenced in terms of performance, taxes, market share, obviously customer satisfaction and technological attractiveness. Analysis shows that introducing amendments to the legislation for the regulation of the provision of virtual sports is consistent with the strategic objectives of the Cypriot National Betting Authority (NBA). More specifically, incorporating virtual sports into the legislation seems to be corresponding with all strategic objectives of the NBA.

In addition to this, regulating virtual sports, follows the contemporary regulatory trend in many European states and in the USA, which have included virtual sports to their legal framework. Delfabbro (et al., 2021) proposes to mitigate product risk with a new framework which "encourages better collaboration and communication between stakeholders; the accelerated production of valid and reliable evidence; a strategic alignment of stakeholder activity; and, more effective and efficient approaches to assessing and mitigating product risk". This suggests that there is much room for a more concerted effort of stakeholders in Cyprus to align towards the aim of enhancing the products value and identifying potential threats.

Finally, it can be argued that introducing innovation to the Cypriot legal framework, specifically into the betting law and to the organisation of betting stakeholders allows for better performance. It helps to identify new profit pools and enhances strengths as opposed to weaknesses, particularly during pandemic restrictions vis a vis competitor. Relying only to threshold capabilities, that is relying solely to traditional forms of betting, may put companies' sustainability into danger since international

competition and atypical or illegal betting have already incorporated novel forms of gambling.

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