APAN 5470

Professor Dalal

Final Draft: Business Idea

April 4th, 2023

**ESport Betting DApp with Betting Insurance Using Smart Contract**

**Project Idea**

Electronic sports, abbreviated as Esports, are organized competitive video gaming contests, primarily involving teams competing against each other in tournaments for a cash prize. Even though tournaments and internationals have been an integral part of the gaming culture, it was the last ten years that the gaming industry really transformed itself, with various kinds of Esports events live-streamed on several platforms such as Twitch, Facebook Gaming, Youtube, and Discord, etc.

Betting has been an important part of any competitive sport events, however, esport betting was not a traditional market. There were no online bookmakers before the late 2000s, and the esport fans used to put all the stakes in local betting shops. Here the problem is that there are few online esport betting platforms because the big heads of bookmakers don’t bother to enter the esport market, let alone bookmakers that integrate blockchain technology and crypto currency into the betting process. Adding on to the problem is the legislation regarding esports are stricter as some of the pro players are under 18, and the audiences are typically younger than traditional sport fans. Most pro gaming organizations fully recognize young players. This differs from sports leagues, such as the NBA, NFL, and NHL, which impose age requirements. However, certain states have approved esports betting regardless, including Nevada, New Jersey, and Tennessee.

Apart from all the difficulties mentioned, we predict that the market for esport is only growing exponentially and crypto betting platforms will be an untapped market where there is big potential. The profile of the gen Z gamers are typically technology sensitive, privacy focused, and are willing to take on this relatively new concept of betting. We sense that they will be a very good match with our product.

**Market Analysis:**

The COVID-19 pandemic has significantly impacted various industries, including the sports industry. As a result, many traditional sports events have been canceled or postponed, leading to a decline in revenue and viewership. However, the esports market has continued to grow steadily during this period.

Esports, which is the competitive play of video games, has gained increasing popularity and recognition as a legitimate sport over the past few years. With the pandemic forcing people to stay at home, the demand for online entertainment has surged, resulting in a further boost to the esports industry.

According to Business Research Insights, there are 2.7 billion gamers worldwide who spent 9.749 billion in 2021. The market is anticipated to grow at a CAGR of 13.7% from 2022 to 2028, reaching USD 24.190 Billion. The important factors boosting the worldwide Esports market size include the rising popularity of video games, investment restrictions, the expansion of live sports broadcasting, and the expansion of the infrastructure for league playoffs. During the projected period, it is also expected that increased internet speed and growing mobile saturation will drive the esports market size

Major game genres like League of Legends, Dota 2, and CS:GO have attracted a lot of betting activity, contributing to the market's enormous rise. Notably, League of Legends has the largest market share among these games.

According to research findings, esports betting is most popular among those between the ages of 18 and 25. This tendency may be explained by the demographic's interest in technical developments and openness to trying out new things.

Due to the broad use of technology that guarantees adherence to safety standards and norms for both online and offline betting across multiple nations in the area, Europe is predicted to dominate the esports betting market share. In addition, a sizeable market share is anticipated for the Asia Pacific area. This is understandable given that China is the world's most well-liked gaming market.

**Product Idea**

In our product, the main function we aim to implement is betting on Esports. The bets will include predicting the winners, scores, match durations, and more, depending on the specific games’ features. In addition, we will introduce betting insurance to increase both the playability of bets and attract players with different levels of risk aversion. In each betting, insurance will serve as a small protection for bettors that allows them to recover part of their bet if they lose. In our Minimal Viable Product(MVP), we will only implement the function on bet to the winners in one game with the option of insurance in order to test the market reaction in less time and effort.

The simplest bet in most Esports games is choosing whether Team A or B will win. Based on this, we plan to include an insurance option to make it more exciting. The detailed example is shown below.

Example:

Suppose there is a League of Legends final between Team A and Team B. You bet $100 worth ETH on which team to win.

Team A:

Odds = 3.0 (2/1 in fractional odds). This means that if Team A wins, you will receive $300 ($200 profit plus your $100 stake.)

Implied Probability = 1 / Odds = 1 / 3 = 0.333 (33.3%)

Team B:

Odds = 1.5 (1/2 in fractional odds). This means that if Team B wins, you will receive $150 ($50 profit plus your $100 stake.)

Implied Probability = 1 / Odds = 1 / 1.5 = 0.667 (66.7%)

However, if the Team you bet loses, you lose all your $100. To insure your bet, you decide to buy an insurance, which is placing a bet on another Team to win as well, to minimize your potential losses.

Assume that you want to insure 20% of your stake on each team.

When betting on Team A:

Insurance bet amount = (20%Stake on Team B \* Implied Probability of Team B) / Implied Probability of Team A = ($20 \*0.667) / 0.333 = $40

When betting on Team B:

Insurance bet amount = (20%Stake on Team A \* Implied Probability of Team A) / Implied Probability of Team B = ($20 \* 0.333) / 0.667 = $10

With insurance, you can get some money back if your chosen Team loses.

Money Back = Insurance Cost \* Odds of Another Team

(if bet on Team A) $40\*1.5 = $60

(if bet on Team B) $10\*3.0 = $30

In the Table below, all the betting and insurance conditions are shown.

Cost = Stake + Insurance Cost

Net Loss = Loss + Insurance Cost - Money Back

| Bet | Win | Insurance | Cost | Bet Gain | Money Back | Loss | Net Profit | Net Loss |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | A | No | 100 | 300 | NA | 0 | 200 | 0 |
| A | A | Yes | 140 | 300 | 0 | 0 | 160 | 0 |
| A | B | No | 100 | 0 | NA | 100 | 0 | 100 |
| A | B | Yes | 140 | 0 | 60 | 100 | 0 | 80 |
| B | A | No | 100 | 0 | NA | 100 | 0 | 100 |
| B | A | Yes | 110 | 0 | 30 | 100 | 0 | 80 |
| B | B | No | 100 | 150 | NA | 0 | 50 | 0 |
| B | B | Yes | 110 | 150 | 0 | 0 | 40 | 0 |

By placing an insurance bet, you have reduced your potential loss from $100 to $80. While you also reduced your potential profit, the insurance bet minimizes the risk of losing your entire initial stake. This betting strategy is particularly useful in cases where you are uncertain about the outcome but want to protect your investment.

Developing this MVP, we not only aim to fill a portion of the gap in Esports betting, but also like to introduce the betting insurance that is almost non-existent in the Esports betting market. Although there are already many similar products in the betting industry, they focus more on sports events and seldom have insurance options. Moreover, the quality of these products varies a lot since many of them are not designed for sports enthusiasts to place bets but for those who have other purposes like money laundering. Thus, we aim to design a high-quality, diversified DApp for Esports enthusiasts.

​​The Minimal Single-purpose Demo (MSD) for On-Chain Esports Betting is a simple, streamlined product that demonstrates the potential of using smart contracts on a blockchain to facilitate and automate esports betting. The MSD's primary function is to allow users to place bets on esports matches using a smart contract. Our contract is intended to manage the betting process securely and transparently, handle the distribution of winnings, and ensure that all transactions are recorded on the blockchain.

The On-Chain Esports Betting MSD focuses on demonstrating the potential of using smart contracts to facilitate esports betting in a transparent, decentralized, and secure manner. This MSD focuses on the core functionality of placing bets and managing payouts. Unlike traditional betting platforms, it relies on centralized authorities, which can be corrupted, manipulated, or inefficient. These issues can lead to disagreements and a loss of trust in the platform. Also, users cannot independently verify the fairness of the betting process in centralized systems. Based on these shortcomings of the traditional betting system, it is necessary to put betting on-chain.

By focusing on these critical aspects of the problem, the MSD demonstrates how blockchain technology and smart contracts can be used to revolutionize the esports betting industry, providing users with a more transparent, secure, and efficient betting experience.

**References:**

<https://www.mordorintelligence.com/industry-reports/global-gaming-market>

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