

## VALUATION OF SPORTS TOURISM PROJECTS USING REAL OPTIONS: THE CASE OF A GOLF COURSE IN RÍAS BAIXAS

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The real options methodology applies the binominal model, which was originally conceived for the valuation of financial options, to the analysis of investment projects. The real options methodology allows overcoming certain limitations of traditional methods for valuation of investment projects, in so far as they do not completely fit into projects with high uncertainty and flexibility. However, the real options methodology should not be considered as an alternative to those traditional methods. Instead, it provides a complementary approach intended to acquire an accurate valuation of investment projects. Precisely, the real options approach allows considering the chance of deferring the investment, expanding or contracting the project size, and even abandoning the project. This type of analysis provides the making decision process with valuable information, given that it incorporates the ability to react to certain events that may take place during the project life.

The main objective of this research is showing an application of the real options approach to a sports tourism project, considering that applications of the real options methodology in this particular industry are still limited, in so far as identifying opportunities for flexibility and modularity in this type of projects does not always come straightforwardly.

Using a golf course as a case study, we show the potential of the real options methodology for the valuation of investment projects in this particular industry, once the optional scenarios relating to the investment project are precisely identified. We get data from interviews conducted with experts and experienced managers in building and conducting golf courses in Spain, who also have experience in managing other golf related businesses, as well as golf related tourism activities. The experts offer their opinions from their own experiences and from data they have collected from various reports from the Spanish Golf Federation, Territorial Federations, as well as various Spanish tourism associations where golf represents an important part of their business and activity.

The real options methodology takes advantage of the financial options theory to evaluate real assets or investment projects. Thus, the underlying asset of the option is a

real asset or a productive investment, which may or may not be executed in the future based on its contribution to the value of the company. The real options methodology provides managers with more capacity to react to certain events that may affect the value of an investment initiative. Traditional methods based on discounting cash flows are generally accepted as a suitable technique for the valuation of an investment project. But there are some projects that have certain characteristics that are not well captured by these traditional valuation methods, due to their high level of uncertainty and considering the need to incorporate flexibility when making the investment decision. These classical methods of project valuation are adequate when it comes to evaluating investment decisions that cannot be delayed, which can be described as “now or never” decisions, or decisions that do not incorporate flexibility in their development. However, when it comes to consider projects that do not fit into this description, it is advisable to take advantage of the real options methodology, as a complement to traditional tools used in investment analysis.

We consider the case of a promoter’s society that intends to build and operate an 18-hole golf course with a clubhouse, parking, swimming pool and paddle tennis courts on its own ground. The location chosen for the construction of the golf course measures 60 hectares (600,000 square meters), with an estimated value of 1,980,000 euros. The location is a tourist area of the Rías Baixas (Spain). It is well communicated by highway, and it is also close to Portugal. Besides, there is no 18-hole golf course in the surrounding area. Therefore, considering the geographical, demographic and dotational situation, there are sufficient reasons to consider the realization of the investment project in this location.

According to similar studies, we establish a time horizon of 30 years for our study, starting in 2017. The estimated income will increase progressively by 4% per year since 2020, when it is expected that the golf course is fully operational. Besides, we estimate that costs will increase progressively by 2% per year. The company will operate through an annual subscriber system with monthly instalments, with no entry costs, so that the subscribers will never own the facilities.

The ground is owned by the promoter’s company, so it is a part of its own funds and, therefore, its purchase is not necessary. The company will finance the rest of the investment through a 6-year bank loan, whose nominal value is 7.8 million euros, with a fixed interest rate of 4.5%.

The relevant figures are estimated, including investment costs, operating income and expenses, amortizations, and the cost of own resources, among others. The result of the net present value (NPV) is -4,756,230.07 euros, which would indicate that the project would lead to losses, if we take this value as the only reference. But considering the high uncertainty of the environment, increased by a very long-time horizon for the analysis, as well as the flexibility that can be incorporated into the proposed project, the use of the real options methodology is proposed as a complement to the calculation of the NPV, which would allow to analyse different scenarios. These are the five options we consider in this research:

- Option to defer: we consider the option to defer the beginning of the project up to year 2020, when the next Olympic Games will be held, considering that golf is being a part of the program of this event.

- Option to abandon: there is the possibility of giving up on the realization of the project and selling the ground.
- Option to expand: we consider the option of creating a four-star hotel within the complex.
- Option to reduce: we consider the option of outsourcing the management of the pool included in the initial project.
- Choice option: we consider simultaneously the options to abandon, expand and reduce, which are described above.

We begin by considering the option to defer the starting moment of the project for three years, until year 2020, when the next Olympic Games will take place including golf in its program. The result suggests that the option to defer should be exercised and, therefore, the project is delayed until 2020.

Once the beginning of the project has been postponed, the rest of the options are presented below. The first one considers the possibility of abandoning the project. Due to the reduced compensation offered, the result suggests that it should not be exercised. The next option considers the possibility of expansion of the project through the construction of a four-star hotel. However, it implies such a high expense compared to the increase in the expected turnover that this option should not be exercised either. In addition, the reduction option is considered by renting the exploitation of the pool to an external company. It implies great savings throughout the life of the project, with a minimum loss in turnover, so it is advisable to exercise the reduction option. Finally, the choice option that considers the interaction among the abandonment, expansion and reduction options, as well as their mutual exclusion nature when it is required, concludes that the reduction option must be exercised.

Therefore, it is suggested to defer the start of the project until 2020, and then execute it with a reduction in the dimension initially designed, which involves outsourcing the management of the pool included in the sports complex. That is, the options of deferring and reducing the project are exercised subsequently.

The study demonstrates the usefulness of this methodology of real options for valuing sports tourism projects. Because of their temporal and financial dimension, decisions about these projects should not be considered “now or never” decisions, being this an inherent approach to classical valuation methods for investment projects. If the environment is characterized by high uncertainty levels, and if it is possible to specify the existence of opportunities for a flexible or a modular development of the project, the methodology of real options encourages a more realistic analysis, when combined with more traditional approaches.

