

The Risk of Investing in the Construction of a Recreational Facility during a Pandemic

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Abstract. The potential success of the hotel business in Slovakia has been associated with a relatively high degree of uncertainty over the last two years. Slovak Government Guideline No. 4/DzPaÚ/2019/MÚ on recreation allowances introduced an obligation for larger employers to reimburse employees for part of their recreation expenses from 2019, creating increased demand for Slovak recreational facilities. On the other hand, the same government, through various restrictions issued in connection with the COVID-19 pandemic, has caused recreational operators problems during this period, not infrequently even existential ones. In this situation, investment in the construction of new hotel-type leisure facilities is burdened by the impact of various factors in the external business environment. The present paper is devoted to the estimation of the risks associated with the construction of hotel-type recreational facilities in the conditions of the ongoing COVID-19 pandemic in Slovakia. The present estimation is performed using the Analytic Hierarchy Process (AHP) method implemented under the assumption of three possible scenarios of development of the external economic environment in the period of the pandemic. Relevant pairwise comparisons forming the input to the AHP method for each alternative are the result of expert assessment of the impact of selected factors.

Keywords: risk, pandemic, investment, recreational facility, AHP method

JEL classification: D810, Z32

1 Introduction

The hotel industry is now characterized as an essential part of tourism services. It is an entity that we can offer in the market, which can satisfy the needs of customers, their

wishes or demands [1] [2]. A hotel product can be food, accommodation and ancillary services as a complex and we call it a service package. It should meet several requirements such as attractiveness, image, accessibility, price, satisfying customer (guest) needs, etc. [3].

Tourism is an industry that, as we know it today, began to take shape in the late 19th and early 20th centuries. Tourism began in the period of the first industrial revolution and today tourism is interdisciplinary. It is an industry providing products and services to customers who spend time away from their place of residence. The industry is divided into three groups namely accommodation services, food services and other tourism [4] [5].

It is generally known that Slovakia offers beautiful nature, geographical location, various historical monuments and cultural heritage for tourism development, but it does not use these resources enough [6].

From the development of foreign tourism we get negative information such as low share of tourists from Western European countries, higher share of low solvent tourists who have low average expenses, higher share of tourists from former socialist countries, etc. [7]. Other problems and shortcomings of the hotel industry in Slovakia are unconnected and incomplete services, improper infrastructure (transport, etc.), unqualified staff in services, low level of knowledge of foreign languages, low level of services that do not correspond to the level of prices, lack of information or promotion, the relationship between staff and hotel guests, cleanliness or hygiene [8].

The hotel investment is treated as a cost item of the investment property. Its payback period is generally very long term, which is approximately 12-15 years. Nowadays, in some locations even 15-18 years must be taken into account. It mainly depends on what type of investment we have used, what is the location of the hotel, what are the financing parameters, etc. [9]. If it is a qualified investment, we can generally take it as a relatively safe investment based on the overall view, with the hotel market being taken as stable in the long run [10].

If we look at the period of the last economic crisis, the volume of investments in hotels in Europe between 2006 and 2007 was at a record high (about 19 billion Euros), but in 2008 the values dropped significantly [11]. Furthermore, due to the recession of European economies, or the decline in RevPAR (Revenue per Available Room), as well as the suspension of bank loans, the volume of realized investments in hotels in 2009 dropped significantly by up to 50%, which amounted to about EUR 3 billion. This implies a decrease of 85% compared to 2007 [12]. The economic crisis has had a significant impact on the hotel industry, tourism and also hotel investments. We have to note that in our neighbours (Austria, Hungary) the economic crisis had a more significant impact on classic city hotels than on hotels providing wellness& spa (an increase of wellness hotels even during the economic crisis was registered by 3 to 9%) [13].

When planning new hotels or accommodation facilities, in addition to monitoring the growth of rooms in the selected location, we must also take into account the development of the number of guests staying in the hotel. In order for hotel investments to take off in the market and to provide good conditions for guests, it is important that

the number of guests with their accommodation grows faster than the number of new accommodation facilities opened [14] [15].

2 Aim and Methodology

On the example of a specific investment project of building a hotel-type recreational facility located in a lucrative recreational location in eastern Slovakia, we will show the possibility of practical implementation of the AHP method oriented to investment risk estimation [16]. The economic evaluation of the investment activities of the company in connection with the project of building an apartment house is based on the situational analysis, which was developed in connection with the implementation of the project of the completion of the building. The present analysis is the basis for supporting the investor's decision-making to decide on the further course of the construction. A description of all parts of the above-mentioned situational analysis would exceed the scope of this paper by an order of magnitude. Moreover, the disclosure of sensitive economic data could have a negative impact not only on the apartment building, but on the entire hotel complex. We will only show the development of costs and revenues over the last four years (see Fig.1.). The figure shows that the COVID-19 pandemic has an impact on the hotel complex's business operations, where the costs and revenues from 2020 and 2021 were close to the situation in 2018. During the pandemic, the government adopted a package regarding allowances to support the tourism business. The allowances relate to support for investment activities and non-investment activities. The hotel took advantage of this assistance for entrepreneurs and submitted an application. For the year 2021, it received the following allowances:

- for wages 71 366, - EUR,
- for rent 3 450,- Eur,
- on a decrease in sales of 64 935,- Eur.

In the following, we briefly describe the basic inputs needed to implement the AHP method. In this context, we will recapitulate some of the input data.

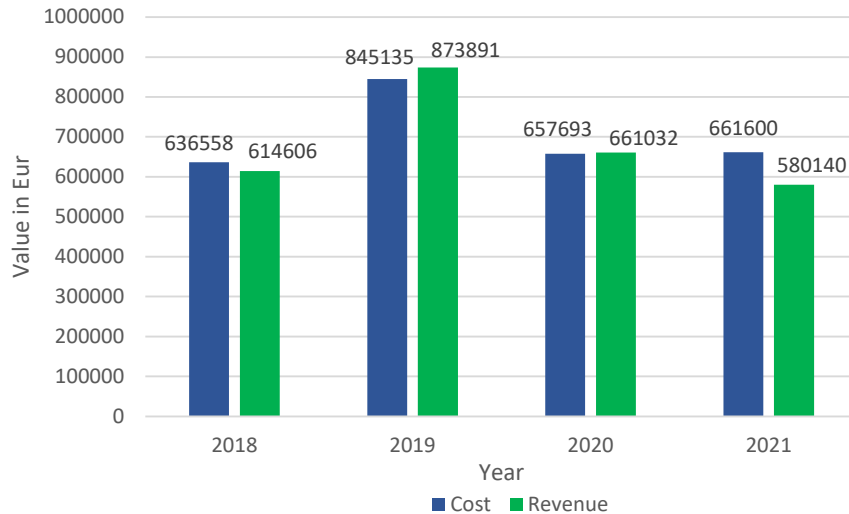


Fig. 1. Development of costs and revenues.

The project is financially about halfway through its implementation. Some of the building modifications have not been completed and the internal equipment has not been purchased or installed. If the project were to stop completely, no revenue could be expected and the cost of preserving the existing condition would be minimal. In addition to the principal, the cost of the funds already spent in connection with the construction would consist of interest on the bank loan plus transaction costs in connection with the negotiation of the extension of the maturity period. The present situation would have a negative impact on the adjusted net investment value as well as on the future value.

If the project were to proceed at the planned pace without any restrictions, the apartment building could be ready to provide services from the beginning of Q3 2022. In the event of a positive development in Q3 and Q4 2022, it would be possible to assume (given the expected increase in demand) almost 100% utilisation of the entire facility in the second half of 2022. In such a case, the revenues would substantially exceed the expected costs. The return on investment and other parameters of the economic evaluation of the investor's investment activities would likely exceed the investor's expectations forecasted before the project commenced. Both the adjusted net present value of the investment and the future value would show a positive increase.

In the event of negative developments (another wave of pandemic, government-mandated lockdown, insufficient and late support from the state), minimal returns can be expected and thus costs will play an important role in the economic evaluation of the investment. If the former is considered an optimistic state of development, the latter is clearly pessimistic. The economic value of the investment in question is obviously heavily dependent on a combination of what scenario is actually realised and what measures are taken by the investor. As a multi-criteria decision-making method

applicable to support the investor's decision-making in the project of apartment building completion, we used the AHP method described in the previous part of the thesis. We developed this method for three possible development scenarios:

1. Optimistic scenario.
2. Average scenario.
3. Pessimistic scenario.

We have identified the following as possible alternatives to the investor's decision:

Alternative 1 - Full Operation - This alternative contemplates the continuation of construction without any restrictions. In this alternative, there is no problem to meet all the deadlines related to the bank loan. This alternative and timing means that the entire apartment building will be fully available for hotel guests throughout the 2022 mid-year period.

Alternative 2 - 3/4 Funding - Represents the completion of the building, landscaping the surrounding area with the understanding that the construction time on the second floor would be made inaccessible to customers. The "streamlining" given would represent a savings of approximately 1/8 of the total expected project cost. In the architect's opinion, the solution in question would pass the approval process without any problems. The accommodation capacity would be reduced by less than 1/4 in terms of square metres of accommodation area, but more than 1/4 in terms of rooms.

Alternative 3 - 1/2 Funding - Represents making only the ground floor of the structure available to customers. Capacity-wise, this represents 1/2 of the building in terms of square footage; in terms of rooms, it is less than 1/2 of the rooms originally designed. Financially, this would represent an additional investment of approximately 1/4 of the total amount.

Alternative 4 - 1/4 Funding - Represents the opening up of two ground floor apartment rooms. These rooms have direct individual access from the beach and therefore the original entrance would not need to be addressed with this option. Financially this represents a saving of 3/8 of the total project.

Alternative 5 - Stop Funding - In this option we consider stopping funding altogether, which represents a saving of 1/2 of the total expected cost. Under this option, preservation work would take place, construction would be completely halted, and the apartment building would not be available to guests during the entire summer and winter 2022 season.

AHP's multi-criteria decision-making method is based on predetermined criteria to select the most appropriate alternative. Due to the nature of the decision problem being addressed, we adopted cost, revenue, investment value and customer loyalty as the basic criteria.

Each of these criteria consists of three sub-criteria, which use a weighting system to determine in more detail the selection of a suitable alternative. These sub-criteria are as follows:

- *Costs* - investment, operating, other costs.
- *Revenues* - sales, subsidies, other revenues.
- *Investment value* - net investment value, adjusted net investment value, future investment value.

- *Customer loyalty* - long-term stays (loyalty of customers preferring long-term stays in the past), weekend stays (loyalty of customers preferring weekend stays in the past), business stays (loyalty of organisers of conferences, corporate events, etc.).

The forecasting of the first three criteria was derived directly from the books of the hotel next door. Similarly, the last criterion "customer loyalty" was based on the experience of the hotel. During the previous periods, it has been shown that different government interventions can only affect certain types of customers. For example, long-term stays tied more to sports and wellness activities may be restricted (if wellness is banned), while customers who visit the hotel on business may enjoy it to the full.

The specific quantification of individual indicators for all combinations, development scenarios and alternatives in terms of all sub-criteria would exceed the scope of this paper by an order of magnitude. The above mentioned data formed the basis of the expert assessment, which the team of experts (consisting of the hotel owner, the construction contractor and the architect) developed as a basis for the implementation of the AHP method in deciding on the future fate of the apartment building. Pairwise comparisons were made between the four criteria, but assuming a negative development (pessimistic scenario), a positive development (optimistic scenario) and between these two developments (average scenario). All results are outputs from the XLSTAT statistical software.

3 Results

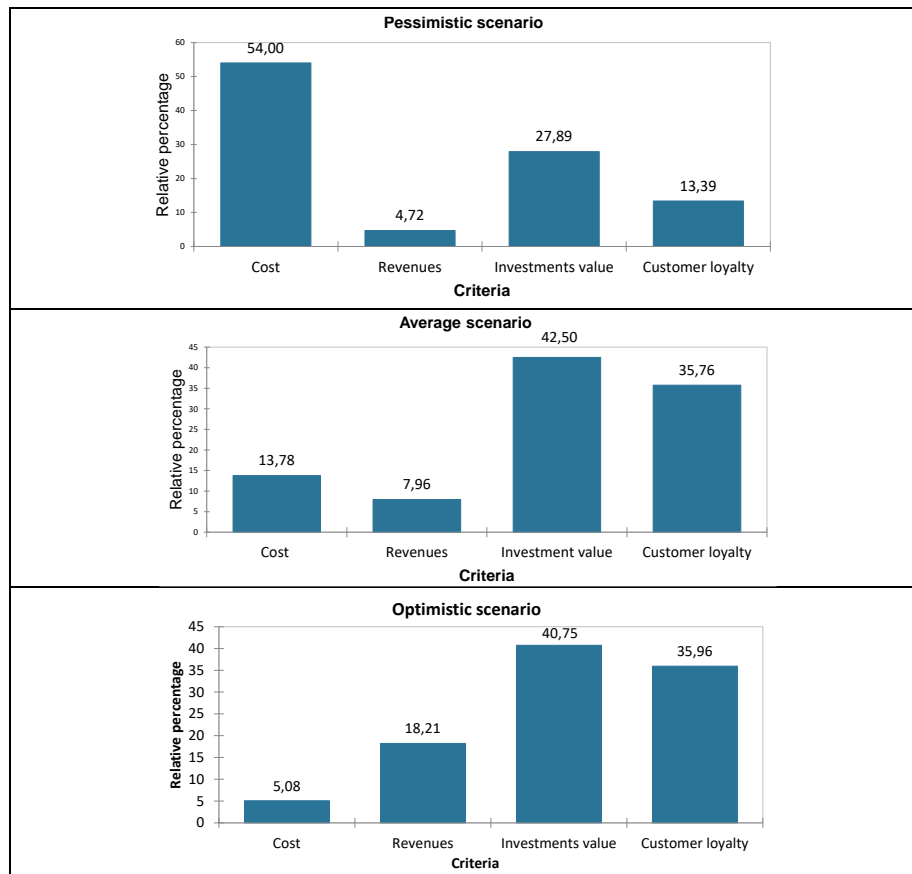
Based on the examination of the current state of the hotel industry in Slovakia, we have identified above a number of problems and shortcomings that hinder the development of this sector.

These problems can be solved as follows:

- Legislative measures from the government - creation of new laws, support related to tourism development, establishment of tourism management bodies, etc.
- making prices for services available,
- developing agro-tourism and making tourism services more attractive,
- the use of support programmes for the development of tourism and the hotel industry, e.g. from foreign funds,
- capitalizing on franchising in the hotel industry,
- creating a good image,
- investment of funds in advertising, effective promotion of Slovakia abroad, especially to emphasize the strengths such as nature, monuments, folklore, etc.

In this paper we present the results of the AHP method comprehensively (see Fig. 2), based on all assessments for all three development scenarios.

Fig. 2. Individual scenarios.



The figure shows the percentage impact of each criterion for all three scenarios based on the evaluation of all previous weights. It is clear from the figure that the most important criterion in the pessimistic scenario is cost. In the average scenario, it is the value of the investment, closely followed by customer loyalty. And it turns out that this situation is maintained even in the optimistic scenario.

The second most important is the value of the business (investment). The criterion with the lowest weighting is revenue. The obtained results can be interpreted by the weight of the estimation of each criterion. The net investment value, the adjusted investment value as well as the future value are of great importance. They lose it only if the investment produces almost no returns.

The result of the evaluation of the AHP method for each scenario is a matrix (see Table 1, 2 and 3). This is an overall evaluation of the individual weights. The rows of the matrix represent the individual criteria and sub-criteria and the columns of the matrix represent the individual alternatives - the options depending on the investor's decision. The last row presents the column sum of the individual weights. The column with the highest numerical value represents the recommended decision for a given estimate of each parameter. In the pessimistic scenario, according to the AHP method

and the estimation of the weights made by the expert group, the best option is to stop financing the project (Table 1).

Table 1. Pessimistic scenario.

Crit./Alt.	Full range	3/4 funding	1/2 funding	1/4 funding	suspension of funding
Cost	2,42	4,49	7,96	13,60	25,53
Investment	1,09	2,76	5,36	9,73	20,42
Operational	0,14	0,23	0,44	0,82	1,33
Other costs	1,19	1,50	2,16	3,05	3,77
Revenue	0,71	0,58	0,66	0,98	1,78
Revenue	0,10	0,21	0,42	0,82	1,67
Subsidies	0,53	0,30	0,17	0,10	0,05
Other income	0,08	0,07	0,07	0,06	0,05
Value of the investment	1,48	2,53	4,29	7,23	12,37
Net investment value NPV	1,17	1,94	3,17	5,17	8,49
Adjusted net present value of the CU	0,25	0,46	0,88	1,62	3,00
Future value	0,06	0,13	0,24	0,43	0,88
Customer loyalty	2,67	2,00	1,88	2,59	4,26
Long-term stays	0,28	0,55	1,09	2,12	4,09
Weekend stays	1,78	1,14	0,63	0,39	0,13
Business stays	0,60	0,31	0,16	0,08	0,04
	14,55	19,19	29,59	48,80	87,87

Even in the average scenario, as in the previous scenario, the AHP method recommends stopping funding (Table 2). In the optimistic scenario, the full scope of works option is clearly the most appropriate option for the continuation of the apartment building project (Table 3).

As a result of the overall assessment under all options, scenarios as well as from the perspective of all criteria, the recommended option based on the implementation of the AHP method is to stop financing the investment project (Table 4). This recommendation can be interpreted as a weighted assessment of the fact that the revenues from the operation of the apartment building are insufficient at the proposed prices of the accommodation facility as well as the expected customer spending in relation to the expected costs.

Table 2. Average scenario.

Crit./Alt.	Full range	3/4 funding	1/2 funding	1/4 funding	Suspension of funding
Cost	6,02	3,29	2,33	1,23	0,91
Investment	4,16	1,93	1,33	0,56	0,39
Operational	1,51	0,98	0,65	0,37	0,24
Other costs	0,35	0,38	0,34	0,30	0,28
Revenue	2,67	1,67	1,22	1,12	1,28
Revenue	2,09	1,08	0,59	0,39	0,25
Subsidies	0,05	0,10	0,19	0,34	0,68
Other income	0,53	0,50	0,44	0,39	0,35
Value of the investment	7,55	7,21	8,27	9,21	10,26
Net investment value NPV	5,32	4,81	5,49	6,09	6,56
Adjusted net present value of the CU	1,49	1,62	1,92	2,16	2,62
Future value	0,74	0,77	0,87	0,96	1,07
Customer loyalty	2,34	3,62	5,65	9,57	14,59
Long-term stays	0,90	1,60	3,03	5,67	10,12
Weekend stays	0,32	1,39	2,07	3,45	4,17
Business stays	1,11	0,63	0,55	0,45	0,29
	37,15	31,59	34,94	42,25	54,06

Table 3. Optimistic scenario.

Crit./Alt.	Full range	3/4 funding	1/2 funding	1/4 funding	Suspension of funding
Cost	2,19	1,29	0,75	0,48	0,36
Investment	1,70	0,97	0,52	0,28	0,16
Operational	0,47	0,30	0,19	0,12	0,06
Other costs	0,01	0,02	0,04	0,09	0,15
Revenue	7,91	3,85	2,54	1,95	1,97
Revenue	6,62	2,86	1,61	0,85	0,37
Subsidies	0,16	0,28	0,48	0,83	1,43
Other income	1,13	0,71	0,44	0,27	0,17
Value of the investment	20,39	10,63	5,50	2,78	1,44
Net investment value NPV	1,30	0,75	0,40	0,21	0,12
Adjusted net present value of the CU	5,05	2,61	1,35	0,68	0,35
Future value	14,04	7,27	3,75	1,89	0,97
Customer loyalty	17,38	9,55	5,08	2,64	1,31
Long-term stays	12,74	6,59	3,40	1,72	0,88
Weekend stays	3,74	2,39	1,33	0,70	0,32
Business stays	0,90	0,57	0,35	0,22	0,11
	95,73	50,64	27,75	15,72	10,16

Table 4. Overall assessment.

Crit./Alt.	Full range	3/4 funding	1/2 funding	1/4 funding	Suspension of funding
Cost	3,54	3,02	3,68	5,11	8,93
Investment	2,32	1,89	2,41	3,52	6,99
Operational	0,71	0,50	0,43	0,44	0,54
Other income	0,52	0,63	0,85	1,15	1,40
Revenue	3,76	2,03	1,47	1,35	1,67
Revenue	2,94	1,38	0,88	0,69	0,76
Subsidies	0,25	0,23	0,28	0,42	0,72
Other costs	0,58	0,43	0,31	0,24	0,19
Value of the investment	9,81	6,79	6,02	6,41	8,02
Net investment value NPV	2,60	2,50	3,02	3,82	5,06
Adjusted net present value of the CU	2,26	1,57	1,38	1,49	1,99
Future value	4,94	2,72	1,62	1,10	0,97
Customer loyalty	7,46	5,06	4,20	4,93	6,72
Long-term stays	4,64	2,92	2,51	3,17	5,03
Weekend stays	1,94	1,64	1,34	1,51	1,54
Business stays	0,87	0,50	0,35	0,25	0,15
	49,14	33,81	30,76	35,59	50,70

On the other hand, it should be noted that the column sum of the weights for the "stop financing" option is only 3% greater than the column sum representing the option of completing the project without any constraints. A subsequent sensitivity analysis of the method based on an insignificant increase in the price of accommodation might find a very different result for the AHP method, i.e. full implementation of the project, but also with only a small variation. The AHP method has shown that there are only two options in play. Either to complete the project fully or to stop funding altogether.

4 Conclusion

Until recently, tourism development has been growing globally, but also in Slovakia. Although tourism in Slovakia has had many shortcomings, it is an important part of the Slovak economy, providing many jobs. The extension by the Slovak Government of the employer's obligation to contribute to an employee's Slovak recreation has substantially improved conditions, especially for those enterprises providing hotel

services. This favourable situation has also translated into a certain investment optimism in the sector.

Using the specific case of a hotelier who, prior to the pandemic period, had invested a significant amount of funds in the construction of a new facility near his existing hotel, we have shown how the selected multi-criteria AHP method can be used to support his decision making on how to exit the investment project. The investment project in question is currently in the middle of its implementation and the hotelier in question is faced with the decision whether to stop the project, continue it without restrictions, or take some restrictive measures. However, the AHP multi-criteria decision making method needs input data to build the model, not all of which were available to the decision making team. The aforementioned decision-making team consisted of the investor (hotel owner), the developer and the architect who designed the building. The uncertainty of this team's decision-making was partly eliminated by constructing three scenarios which, in a way, projected the possibilities of future development both in terms of regional development and in terms of possible restrictive measures by the government.

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