

Theme Park Investments: How to Beat the Average - A Case Study from the Netherlands

Pieter C.M. Cornelis

Abstract—(European) theme parks invest approximately 10 percent of their yearly turnover into new rides and park improvements. Without these investments these parks assume not to be a very competitive and appealing daytrip for their target audiences. However, the impact of investments in attracting new visitors is not well-known and seems to differ dramatically between parks. This paper presents a case study from the Netherlands in which a small amusement park applied a suggested, not yet proven, investment method. The results of the investment are discussed in (a) the form of return on investment and (b) the success of the predictions with regard to this investment. Suggestions for future research are presented.

Keywords—Entertainment industry, innovation, investments, theme parks.

I. INTRODUCTION

THE year 2013 was a very interesting year for theme park enthusiasts in Europe. Over the past few years, many investments have been made towards attracting more visitors, and providing an even more beautiful experience to existing visitors. Major investments were made, for example, in Djurs Sommerland, Farup Sommerland, Futuroscope, Grona Lund, Bellewaerde, Blackpool Pleasure Beach, Walibi Belgium, the Plopsa parks, Etnaland, Liseberg, Tivoli Gardens, Europa-Park, and Toverland. For the season of 2013, the European theme park industry invested over 500 million euros in new projects and park improvements [1]. Although this is not an exhaustive list, it does contain the most striking European investments of 2013. The most remarkable of these investments are those made in Toverland. On average, theme parks invest approximately 10 percent of their yearly turnover into new rides [2]. Toverland, however, invested 100 percent of its turnover. Such expansions are very risky, and therefore rarely occur within the industry [3]. In his dissertation, *Attraction accountability: predicting the unpredictable effects of theme park investments?!*, [4] argues that the impact of investments in theme parks are difficult to predict, although the chance of investing successfully can be increased by adhering to certain working methods. Unfortunately, thus far, there have not been any empirical case studies to confirm the effectiveness of said working method

Innovation research in tourism is a young phenomenon. Issues are only gradually being elaborated theoretically, and illuminated by empirical evidence [5]. According to [6] and [7] there is an incomplete understanding of how innovation

processes take place in tourism enterprises and organizations, and there is an obvious quest for better empirical evidence regarding innovation in tourism, and its quantification. Although growing numbers of tourism researchers are addressing the wide palette of issues that fall within the innovation headline, and are expanding the methodological scope [5], so far, no empirical evidence can be found concerning the effects of using an innovation approach with regard to investments in theme parks. Toverland's management has employed the working method suggested by [8] for theme park investments. This makes Toverland an interesting test case for this specific method, and, in more general terms, for collecting empirical evidence regarding innovation in tourism. The working method in question requires a perfect alignment of analysis, strategy, and the creation of investments. It also stipulates an analytical phase consisting of three consecutive steps: (a) determining the effects of past investments, (b) explaining these effects by means of the Attraction Response Matrix, and (c) cross checking predictions by benchmarking future penetration rates. The results of these three analysis result in input for the strategy, which, in turn, forms the basis for the briefing at the start of the creative phase.

The following article starts off with a brief introduction of the theme park Toverland. Subsequently, the analytical phase, the strategic approach, and the creative approach to large-scale investments will be discussed. Finally, the results will be presented, as well as a discussion of the specific insights into future investments within the theme park industry generated by this test case, and the insights into innovation in tourism in general.

II. TOVERLAND UP TO 2011

Toverland (Magic Land), located in Sevenum, in the south of the Netherlands, started out in 2001 as a small, indoor theme park designed for children up to approximately 10 years old. The park consisted of one hall with a surface area of 2.5 acres, featuring a roller coaster, a swing carousel, a soft play climbing castle, a water slide, a climbing hat, and some smaller playground equipment. It was the park owner's wish to offer families with small children a place to go on rainy days. The only theme that was used was the character of Toos Toverhoed (Toos Magic Hat), an ugly yet friendly witch, with whom small children could have their picture taken. Otherwise, the hall presented a bare, unattractive environment, which proved a dismal experience, especially to parents. Nevertheless, the number of visitors within the first year exceeded expectations, prompting the decision to immediately

Pieter C.M. Cornelis Ph.D. is with the Fontys Academy for Creative Industries, department International Events, Music & Entertainment Studies, The Netherlands (phone: 0877879803; e-mail: p.cornelis@fontys.nl).

construct a second hall.

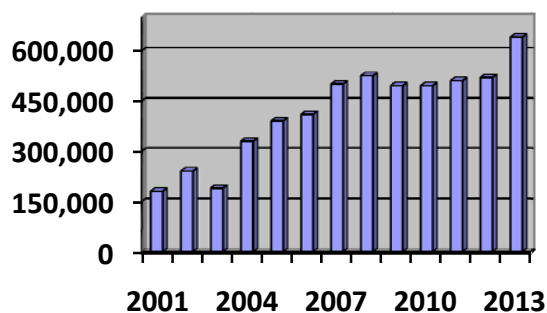


Fig. 1 Number of visitors over the years

Fig. 1 shows an overview of the evolution of visitor numbers over the years. The second hall, which also has a surface area of 2,5 acres, was opened in 2004, and consisted of a number of rides designed for slightly older children: approximately up to the age of 12. This hall did not exhibit much of a theme either. On the inside: a flume ride, a Wyland bobsleigh track, an elevated obstacle course, and a fun house. There is a large food court in the middle of the hall. The entrances to the flume ride and the bobsleigh track are located inside, even though the better part of these rides is outside. Also, the Booster Bike launch coaster was built behind the second hall, by Vekoma in 2004. Thus, a small outdoor area was added to the indoor park. But at that point, the outdoor area did not have much else to offer. In 2007, the park introduced a wooden roller coaster built by Great Coasters International. It is based on the legend of Troy. For the first time in the history of this park, (much) attention went out to storytelling and creating a theme. Moreover, this investment regarded a fully outdoor activity. The number of visitors increased, as it had done for years. There seemed to be no end to Toverland's success. Big plans were made to further expand the park by building a third hall, which would have made Toverland the biggest indoor amusement park in Europe. But in 2008, growth did not live up to the prognosis, and between 2009 and 2011, the number of visitors became stagnant. Thrill seekers loved the Troy roller coaster, but found few other things of interest within the park. After their initial trial visit, they never returned. Families with small children had to pay a relatively high entrance fee because of steep investments made for Troy (7 million euros), even though some of the rides were not interesting to them. Since there were plenty of alternatives in the area, they had ample opportunity to spend their leisure time elsewhere.

Apart from the large investments mentioned above, the park also invested in smaller infill rides and improvements to the park each year. The park's ambition turned into a burden, as far as investment and financing costs were concerned. The financial crisis, which emerged in 2008, did not make things any easier. As the owner had no interest in consolidation, the park went in search of a new strategy for the future in early 2009, in the wake of another disappointing financial year.

III. TOVERLAND FROM 2011 ONWARDS

As mentioned in the introduction of this article, the suggested working method for theme park investments according to [4] entails the alignment and the sequence of the (three phases of) analysis, strategy, and creation. The following paragraph deals with these matters consecutively, starting with the three-step analysis approach for theme park investments.

A. Three-Step Analysis Approach for Theme Park Investments

In 2011, a thorough analysis of the park's successes and failures began. Which factors influenced the success and the subsequent stagnation of the park, as well as the park's future potential, has been studied. There is not much professional literature available on this subject. Research conducted by [9] and [10] did explore the key attributes of theme park experiences from a consumer's point of view, but this research regards American and Chinese theme park markets, respectively. Reference [11] also conducted interesting research into the reasons for failure of Chinese parks. His research was focused on the disappointing results of these parks in the Nineties. According to [12] American and Asian markets are in a different stage of development in comparison to the European theme park market, and are therefore not particularly suited for a one-on-one comparison to the situation in Toverland. Reference [13] did explore the factors associated with success and failure in European theme parks, however, they conducted their research from a management's point of view. For the sake of completeness, the work of [14] could be mentioned, although it deals with visitor attractions in general, not with theme parks specifically. For this reason, it lacks specific, consumer-orientated, empirical findings. Primary research will have to determine which factors contributed to the success and failure of Toverland. In order to gain insight into these matters, the actual effects of investments into the park had to be determined.

1. Actual Effects of Investments Based On the Error Correction Model

The influence of investments on the number of visitors, as well as other factors that influenced this growth, were explored by means of the error correction model. The error correction model is a so-called multiplicative dynamic regression model. It does not only show dynamic effects (making a distinction between short-term and long-term effects), but it also generates results such as elasticities and multipliers, as opposed to a standard regression analysis [15]. The number of visitors to Toverland theme park has been analyzed per day, starting from its opening day, up to 1 April 2011. The influence of the weather on each day, including factors such as temperature, rain, snow, and fog, as well as the weather forecasts, have been taken into account. Factors such as the entrance fee (for children as well as adults), the marketing budget, opening days and hours, special events such as Father's Day and Mother's Day, weekend days, school holidays in the Netherlands and abroad, developments with

regard to the availability of overnight accommodation in the immediate vicinity, the sum of the investments, and general demographic and economic trends have been taken into account. Please consult [4] for an account of these factors. By studying which factors influence the number of visitors on a day-to-day basis, the actual effect of investments can

eventually be uncovered. This analysis showed that the effect of the weather and of weather forecasts was substantial. The effect of the weather proved more substantial than the effects discovered by [16], which, incidentally, only included precipitation in their analysis of weather influences.

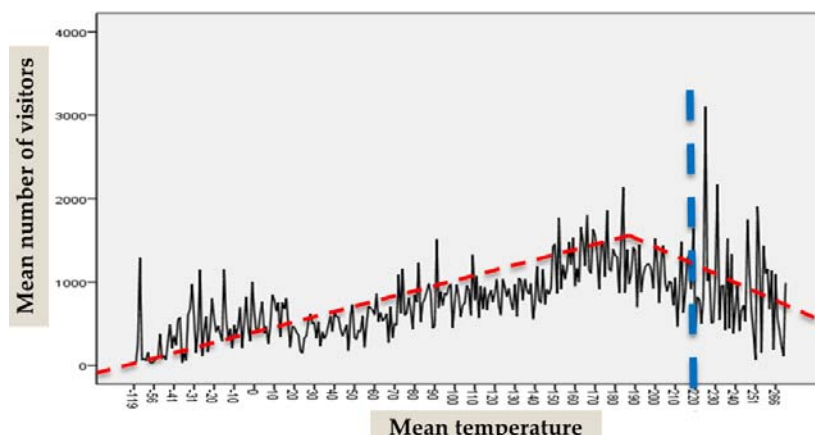


Fig. 2 Correlation temperature and number of visitors

Fig. 2 shows a simple, bivariate correlation between temperature and the number of visitors. This analysis indicates that the number of visitors increases up to a temperature of approximately 18 degrees Celsius, and decreases as the temperature rises above that. This pattern occurs at many theme parks, although the decrease sets in at a lower temperature in the case of Toverland. Further analysis shows that this is due to the park's indoor nature. If the temperature rises too high, visitors turn to more comfortable alternatives. These alternatives consist of rival parks that do feature sufficient pleasant outdoor attractions, and, when the weather is very warm, rival alternatives such as swimming pools or a day at the beach. During the peak months for theme park turnover (July and August), the average temperature in Sevenum lies above the optimal one. Realistically, this means that the park, in its current setup, misses out on a lot of income. The error correction model, incidentally, shows that the effect of the weather is far greater than suggested by this bivariate analysis, since it takes into account all of the factors that influence the number of visitors. The ultimate purpose of the error correction model is not so much to determine the influence of the weather, but rather to determine the impact of investments, adjusted for weather and various other factors. Subsequently, the results of this analysis were compared to the benchmark of investment effectiveness in European parks. This benchmark includes distinctions according to the context of parks, such as the size of a park, its phase of development, and a distinction between amusement parks and theme parks. It turns out that the actual effects of investments in Toverland lie above the benchmark average, although the effects weakened in the course of time. This negative trend was stronger in Toverland than it was in the rest of the benchmark. Based on this analysis, initial insight has been gained into a

possible bandwidth within which future investments into Toverland are likely to be effective.

2. Further Analyses Based On the Attraction Response Matrix

In addition to the error correction model, the Attraction Response Matrix [17] was applied. This matrix was used to find an explanation for the results found. Why were certain investments into the park more effective than other investments? And why did the effects decrease over time? The Attraction Response Matrix is a matrix that links direct, short-term, and long term correlations between attraction input and attraction output. Attraction input refers to matters such as the type of attraction or ride system, the presence of a thematic framework and storytelling, and the use of familiar content and such. Attraction output refers to attraction responses, park responses, and brand responses. Benchmark data show a significant difference between investments in amusement parks versus theme parks on the one hand, and the influence of park size on the other hand. The thematic framework is an important factor in explaining the level and the duration of investment effects in attractions in general [4], and in Toverland in particular. Even though the park hardly had any thematic framework at all, the effects of Troy could mostly be explained from the presence of a theme and storytelling. The decrease of these effects would have been more dramatic if this last big investment had only been a bare roller coaster. Toverland's results were also influenced by strikingly low brand awareness among the public, in combination with a negative image, based on the notion that the park mainly caters to small children, with little attention to the park's theme: magic. Visitor satisfaction rates, however, are high: an 8.2 on a scale of 1 to 10.

3. Market Potential Based On Catchment Area

The third step in the analytical process was to do research into the catchment area, and Toverland's penetration rate within these catchment areas. The method developed by [3] was used in this research. Firstly, the development of penetration rates within the first ten years of Toverland's existence was scrutinized. To calculate this, the numbers of visitors were expressed as a percentage of the number of residents within a 0-30 minute drive, a 30-60 minute drive, and a 60-120 minute drive. The evolution, over the past decade, of the flow of tourists within one hour's distance of Toverland has also been analyzed. Since Toverland is located close to the Dutch-German border, this analysis proved to be rather treacherous, because of the possibility of an overlap with residents. Someone who lives in Sevenum, but goes to Dortmund for a weekend holiday, would be counted twice. This overlap has been investigated [18]. Next, the penetration rates were compared to the benchmark for parks of a similar size. It turned out that Toverland has an extremely low penetration rate. With a total number of residents of over 30 million, and another 10 million tourists within the travel distances formulated above, the number of visitors per year, 500,000, is relatively low. Subsequently, developments with regard to the number of residents and the number of visitors within Toverland's catchment area were analyzed for the decades to come. By projecting possible benchmark penetration rates onto these numbers, a prediction of Toverland's future number of visitors can be made. This number was then compared to the results of investment effects, which were generated by the error correction model, and adjusted in accordance with the insights gained from the Attraction Response Matrix. In other words: what possible effects would there be, if Toverland were to continue investing in the right manner (based on historic, elucidated data from Toverland investments)? These findings have been compared to the results of benchmark penetration rates for similar parks within the catchment area in question. The results of both of these analyses show that the stagnation in Toverland's number of visitors, which occurred in 2008-2011, does not necessarily form an obstacle to further growth in the future. Provided that the right investments are made, the park should still be able to expand considerably.

B. Strategic Approach for Theme Park Investments

A long-term investment plan for Toverland has been developed, based on the analyses mentioned above. The most important insight gained by these analyses, is that the park was out of balance. It consisted of a large indoor area for small children, without any theme, and a very large, wooden roller coaster for thrill seekers inside a beautifully themed outdoor area. The impression that Toverland is an indoor amusement park for small children mainly impeded the growth of visitor numbers in the summer months. The thematic outdoor area in itself was not attractive enough for an older, broader target audience. The ticket price expressed as entertainment value (ticket price divided by the number of hours people spend inside the park) was too high to be able to compete with the

large number of alternatives within the area. The park had become too expensive for various target groups. Moreover, the park had gotten stuck in a vicious price circle [19]. The investment and financing costs had risen so high, that the park had no alternative save expansion, just to be able to meet these costs. Since value equals customers' perceived quality divided by the price of this quality, successful innovation must increase value by improving quality, or by lowering price [20]. If the number of visitors and the park's turnover did not increase, a cost reduction, which goes hand in hand with impoverished customer satisfaction, would be the only strategy for survival. This, in turn, would require a price reduction, which would further decrease the possibility to add value to the park by improving the customer's experience, which would again necessitate further price reductions, and so on.

The results of the analyses delineated above all converged on a single strategy: Toverland had to evolve from an indoor amusement park for small kids into an all-weather theme park for the whole family. This strategy implies three important challenges:

- More attention to atmosphere, visitor experience, theming, storytelling, and entertainment (theme park)
- A wider range of attractions for the summer months, and a better balance between demand and capacity year-round (all-weather)
- Develop leisure value for the entire family

This combination of strategic anchors would give the park in question, given the situation described here, the best chance of high profit. The decision was made to invest two years in a row, in order to catch up to the desired positioning as quickly as possible, while making optimal use of so-called inertia [4] effects. By splitting the original investment plan of 20 million euros into two installments of 12 and 8 million euros, respectively, the park also gains an interesting marketing communication message two years in a row. The makeover began with working out the theme of the first hall, which, for now, also includes the entrance to the park. The idea behind this investment was to raise the presence of a theme throughout the park, and to take into account the fact that first impressions matter. This hall underwent a metamorphosis, and eventually blossomed into a hall filled with Eastern and Western magic, with a better atmosphere, experiences, quiet areas, music composed to match the surroundings, sound-dampening walls, and a lot of detailed decorations. The amount of time that people spend in this part of the park has increased considerably since the investments were made, visitor appreciation improved, and secondary spending (mainly on food and drinks) went up.

In order to complete the transformation from indoor amusement park to all-weather theme park, the decision was made to develop a new, outdoor themed area with a surface area of about 10 acres. Part of the exploitation estimate was allotted to a budget for more entertainment, such as a magical park show, new characters, and musical acts. The most important objectives of the new themed area were to attract more visitors in the summer months, to attract an older target

audience, and to increase the amount of time people spend in the park. It had to be aimed at families with children up to the age of 16 (or as long as children still visit amusement parks in the company of their parents.) In the past, a family with children aged 10, 12, and 14, for example, would not have chosen to visit Toverland, because the oldest child would not enjoy it. By increasing the number of rides for this age group, the park has now become an interesting choice for the entire family. The magic theme should be elaborated thoroughly, and there should be sufficient opportunities for dwell time; not only by creating a varied amount of rides, but also by means of entertainment, food courts, and pleasant areas for relaxation. Besides that, so-called dissatisfiers such as cleanliness, safety, and security need to be addressed properly. These ideas correspond with recommendations made by [21], [22] and [23], as well as research performed by [9], [10] and [13], as mentioned earlier. After the successful launch of this first phase, a second, adjacent theme zone will be opened up.

C. Creative Approach for Theme Park Investments

In-depth interviews have indicated that visitors interpret the theme of magic in three different ways: magical, mythical, and metaphorical. The magical aspect of magic, as visitors see it, consists of surprise and the aesthetic. Visitors associate this with the Eastern atmosphere of bazaars, thrilling and exciting sights such as fire eaters, palm readers, magic tricks, and the like. The experience may be somewhat overwhelming to the senses. So many things are happening everywhere, that it becomes virtually impossible to take it all in. The new version of the first hall was based on these concepts. The second level of magic concerns the mythical, the supernatural. These stories are about unexplained phenomena, accepted as true, but factually unfounded; a type of religious belief. This second layer of magic has many nuances and subdivisions, but what they have in common is (the acceptance of) the notion that we cannot comprehend all. This layer of magic has been captured within the Troy-area, featuring the wooden roller coaster. The metaphorical layer of magic concerns the visitor's real, deep-seated motivations, desires, and inspirations. If visitors were really capable of magic, it would give them hope. Real hope, in the sense of actively contributing to the realization of a possible new future. Visitors light up, when they realize that intangible, positive occurrences can become reality. It surpasses the level of simply wishing for something; it is gripping, and it brings about a certain level of involvement that seems to make anything possible. Ultimately, it turns out, all hope goes out to the magnetic, magic word "love", and the beautiful, charming, enchanted, and peaceful world it could engender.

This analysis has led to the decision to name the new themed area the Magical Valley, and to place the thought of hope and love at the heart of this zone. A peace-loving, magical creature was developed (the Dwervel), that is now present everywhere in the Valley. This creature forms the basis of the big idea of hope and love, and enables visitors to enter an immersive world, in which only the here and now matters. All worries and all daily drudgery can be cast aside

within this meaningful environment, and at the end of the day, visitors return home, feeling 'recharged'. This is the way in which the strategic anchor 'theme park' has been realized at Toverland according to the insights of [12] and [24]. Next, choices were made with regard to ride systems, food courts, entertainment, music, names, and so forth, carefully matching them to the central idea, and also making sure they were sufficiently distinctive in relation to the park's own, current arrangement, and the competition's arrangements within the catchment area. The Magical Valley consists of a central river rapid, built by Hafema, a spinning roller coaster featuring on-board music, built by Mack Rides, as well as some smaller attractions, a musical fountain in front of the restaurant's terrace, shops, play areas for children, scenic little bridges, benches, and swings, set within a beautifully designed decor of flowers, trees, and a lot of swirling waterfalls. The big idea, storytelling, experience, and design have all been aligned in a compatible manner, increasing the chance of experiencing an immersive world [25].

The case study described above shows that analysis, strategy, and creation have been carefully attuned. The analysis revealed which investments led to success, and which led to failure within the amusement park in question. The analysis also revealed the potential of the park in question, provided that the correct investments are made. Based on these analyses, a prediction was made with regard to the possible effects of investments, given a solid strategic and creative approach. This strategy was fully based on the key results of the analytical phase, and served as a foundation for the creative phase. During this final phase, the aspects of big idea, storytelling, experience, and design were fully aligned. The next paragraph will illuminate the results of the investments.

IV. INVESTMENT RESULTS

The most important parameter, upon which investments are generally assessed, is the ultimate Return on Investment [26]; the additional profit generated by the investment, divided by the amount of money invested. The theme park industry, however, often prefers the EBITDA parameter: Earnings before Interest, Tax, Depreciation and Amortization [27] and [28]. A ride that costs 1 million euros, is depreciated within five years, requires a lot of maintenance, as well as four people to operate it, will be less profitable than a ride that costs 1.5 million euros, is depreciated within ten years, requires little maintenance, and only requires two people to operate it; assuming that they attract the same number of visitors. If we are to determine how much additional profit an investment generates, we have to take into account the additional turnover as well as the total cost of ownership. A ride that, at first glance, seems to be more expensive, could ultimately prove to be a cheaper and better investment. It is rather remarkable that we can quite accurately calculate the total cost of an investment, whereas the most important question (how much additional turnover will be generated by this investment?) is rarely answered carefully. Usually, this question does not yield a better response than a so-called

hopeful estimate, based on bad evaluations and past investments [29].

In the case of Toverland, the effects of investments into the Magical Valley were calculated according to some twenty percent additional visitors within the first year (plus or minus 1.5 percent.) The time lag effects in the years to come have also been calculated. However, they will not be included in this article, because the actual results are not yet known; they will also depend on the course the park will (continue to) take. The estimated increase in the number of visitors within the first year is very high. The average effect of investments in the (European) theme park industry was calculated by [4] to be a ten percent increase in the first year, and an additional increase of roughly five percent in the second year. The highest effects that were reported, according to this research, occurred in a small theme park that had invested in a new ride with micro-theming. The investment yielded an increase in the number of visitors of approximately 18.5 percent in the first year [4: pp137]. Thereby, the predicted effect in Toverland exceeds the highest score that was measured within the reported benchmark, which causes great statistical uncertainty, as far as the results are concerned. This makes it all the more interesting to find out whether or not this prediction was accurate.

As shown in Fig. 1, the number of visitors increased by 24 percent in 2013, in comparison to the year before. This is a considerable increase, making Toverland one of the fastest-growing parks within the theme park industry (AECOM, 2009-2013¹). The 120,000 additional visitors, however, cannot be attributed solely to investments into the Magical Valley. The marketing budget was also increased (positive effect), the ticket price went up during peak season (negative effect), but was lowered during off-peak seasons (positive effect), the amount of entertainment increased in 2013 (positive effect), the number of summer evenings increased (positive effect), and so on. If we isolate the effect of the investment in magic valley, once again employing the error correction model, it turns out that it yielded a good 22 percent increase in the number of visitors. That is even higher than the (high) prediction. If we go by rough benchmark data [27], we can assume that the average turnover per cap, at a ticket price of 23 euros, comes down to more than 25 euros: 15 euros from ticket sales, and another 10 euros from other expenditure, such as food and drinks, merchandise, gaming, parking, and so forth. Thus, the additional turnover gained from new visitors amounts to an estimated 2.8 million euros in the first year.

Apart from the effect of additional visitors, and with that, the additional turnover gained from ticket sales and secondary spending, an additional turnover from existing visitors should also be taken into account. Customer satisfaction increased from an 8.2 to an 8.8 on a scale from 1 to 10, which indicates that visitors are very content with the new Toverland. Increased customer satisfaction can partly be explained from a longer stay in the park, and, in association with that, a better,

more competitive entertainment value. The park has not produced any data on secondary spending by existing visitors, but one may assume that a longer stay in the park leads to increased secondary spending on food and beverage. If we assume that visitors stay in the park for about 45 minutes longer, this would yield an average increase of 0.75 euros per cap. If the park manages to stretch the duration of visits even longer in the future, the per cap secondary spending will increase by much more than 1 euro per hour, because the park would thus edge closer to an additional meal time. Moreover, existing visitors yield additional turnover, because the entrance fee in the peak season was increased by 1 euro, which is more than the reduction offered during off-peak seasons. The exact yield is unknown, but if we assume that it amounts to approximately 65 percent (in conformity with the benchmark [27]), the ticket turnover from existing visitors must have increased by approximately 100,000 euros. Ultimately, the investment has yielded an estimated additional turnover of about 3.3 million euros in the first year, while the EBITDA increased by more than 1 million euros.

V. DISCUSSION

Calculating the effects of historic investments into the theme park industry is a relatively simple, but time-consuming matter. Obtaining all historic day-to-day data presents a considerable challenge, where most parks are concerned, but the analysis in itself is relatively easy to perform, as soon as all of the data are available. For this article, the robust error correction model was employed, but other econometric models, used to isolate the effects of investments from other factors that influence the number of visitors, would have been conceivable as well. Reference [30] shows that the various econometric models can produce different results. However, a test performed by [4], using two different models to analyze the same set of data from theme park 'de Efteling' yielded nearly the same results for the first two years. After that, the differences did indeed increase.

Predicting the effects of future investments is another matter and a much trickier one [4]. Reference [31] even claims that, in an industry where novelty and creativity play a large role in the expectations and satisfaction of visitors, it is not possible to guarantee success. It is indeed hardly possible to guarantee success, but the research described here does show that predicting the effect of investments in the theme park industry is not necessarily a random process. Despite the fact that, in our predictions, we have to reckon with many uncertainties and margins, the case of Toverland does indicate that the chance of a successful investment can at the very least be increased by carefully applying the working method described here. Reference [3] has two pieces of advice for investors: (a) you have to beat the average, and (b) take calculated risks. His advice boils down to the fact that we first need to gain insight into variations from the benchmark. If we can explain these, we are on our way towards beating the average. An important part of the explanation can be found within the context of the park and the investment in question. By means of the case study discussed here, an attempt was

¹ The annual attendance reports from AECOM can be found on www.aecom.com.

made to provide more insight into Toverland's context and the investment in question. Using the working method described above, the park also followed the second piece of advice drawn up by [3] since the risks involved in such a substantial investment are great. And yet, by carefully aligning the three phases of analysis, strategy, and creation, these risks can become calculated risks.

Nevertheless, many questions remain with regard to the predictive nature of the working method presented here. The expectation was that a rigid and consecutive alignment of the three steps of analysis, strategy, and creation would lead to optimal results. Starting from the assumption that this would indeed happen, the results from the analytical phase were used as a guideline to predict the increase in the number of visitors in the years to come, within specific margins of uncertainty. Although in this case, predictions were made for the first year only. It has now turned out, that the high prediction resulting from this method seems to correspond to the realization to a reasonable extent. Firstly, it needs to be emphasized that they corresponded 'reasonably'. The prediction resulting from the model was about 10 percent lower than the realization. This may not seem dramatic, since the realization surpassed the prediction, but would a 10 percent deviation also seem 'reasonable' if the situation had been reversed? In other words: if the model's prediction had surpassed the realization by 10 percent? A second consideration is the fact that this was a single case study, which means there is a good chance that this was just a fluke. It is difficult to perform replicative research, but it would be highly desirable, since it could verify the results of this case study. Up until now, we have only explored the effects in the first year, and it is not inconceivable that prediction and realization would fall further out of step in consecutive years. Return on investment in the theme park industry is determined by the investment's long-term success [32] although its success in the first year does give a good indication for the future. This makes an analysis of the first year very interesting. It is, however, also important to determine how the number of visitors will evolve in the years to come, and how the balance between trial visitors and repeat visitors will evolve [33].

On closer inspection of the working method used here, we may assume that the strategy seems to correspond well to the results of the analyses, but the question remains: does that automatically imply that this is the ideal strategy? It is possible that other strategies would have worked as well, and would have yielded different results. The same could be said for the creative implementation. The fact that visitor satisfaction has risen from an 8.2 to an 8.8 is a beautiful achievement in itself, especially because of its exponential link to loyalty [20], but this does not mean that the Magical Valley was the only correct creative realization. Opting for enchanted lakes, for example, may very well have led to even higher visitor satisfaction, more visitors, and more spending. Or, contrarily, less of those, landing us right on top of our prediction. The influence of a different strategy or an alternative creative realization would not have been included in the predictions, since these predictions presume a good

alignment, which also seems to be the case here.

VI. CONCLUSION

The success of the investment in Toverland can be regarded in two ways: (a) success in the form of return on investment and (b) the success of the predictions with regard to this investment. The real contribution of this case to further insight into the effect of investments in the theme park industry seems to mainly consist of the description of the process leading to a successful return on investment (a), and only partly in the explanation of how to predict success (b). Alignment of the three-steps of approach to analysis, strategy, and creation increases the chance of successful investment, but the ultimate extent of this success remains (for now) an unpredictable prediction.

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REFERENCES

- [1] IAAPA (2013), What's New for 2013 at European Parks and Attractions, <http://www.iaapa.org/news/newsroom/news-articles/what's-new-for-2013-at-european-parks-and-attractions#sthash.ne3OQCgf.dpuf>
- [2] LDP (2013), *Fortune telling: How to Measure and predict the Impact of New Attractions*, presentation during EAS 2013, (September 28th, Paris)
- [3] Price, H. B. (2003). *Walt's revolution by the numbers*. Orlando: Ripley Entertainment inc.
- [4] Cornelis, P.C.M. (2011), *Attraction accountability: Predicting the unpredictable effects of theme park investments?!*, Breda: NRIT Media
- [5] Hjalager, A-M. (2010), a review of innovation research in tourism, *Tourism Management*, 31 (1), 1-12
- [6] Faché, W. (2000), Methodologies for innovation and improvement of services in tourism, *Managing Service Quality*, 10 (6), 356-366
- [7] Hall, C.M. & Williams, A.M. (2008), *Tourism and Innovation*, London: Routledge
- [8] Cornelis, P.C.M. (2010a), How to successfully invest in the theme park industry?, Presentation of PhD results, during Dutch Association of Leading Visitor Attractions annual member meeting, Venlo: 2nd October 2010.
- [9] Milman, A. (2009), Evaluating the guest experience at theme parks: an empirical investigation of key attributes, *International Journal of Tourism Research*, 11: 373-387
- [10] Milman, A., Li, X., Wang, Y., & Yu, Q. (2012), Examining the guest experience in themed amusement parks: Preliminary evidence from China, *Journal of Vacation Marketing*, 18: 313-325
- [11] Ap, J. (2003), An assessment of theme park development in China. In: Lew AA, Yu L, Ap J, et al. (eds), *Tourism in China*, Binghamton, NY: Haworth Press, 195-214
- [12] Anton Clavé, S. (2007), *The global theme park industry*, Cambridge, MA: CABI
- [13] Pikkemaat, B. & Schuckert, M. (2007), Success factors of theme parks – an explorative study, *Tourism*, 55 (2): 197-208
- [14] Swarbrooke, J. (2002). *The development and management of visitor attractions* (2nd ed.), Oxford; Boston: Butterworth-Heinemann.
- [15] Paap, R., & Franses, P. H. (2000). A Dynamic Multinomial Probit Model for Brand Choice with Different Long-Run and Short-Run effects of Marketing-Mix Variables. *Journal of Applied Economics*, 15 (November/December), 717-744.
- [16] Joo, H.H., Kang, H-G. & Moon, J.J. (2014), The effect of rain on the decision to visit a theme park, *Asia Pacific Journal of Tourism Research*, 19 (1) : 61 – 85
- [17] Cornelis, P.C.M. (2010b), Achieving Attraction Accountability through an Attraction Response Matrix, *Journal of Travel & Tourism Marketing*, 27 (4), 361-382
- [18] LDP (2011), *Toverland amusement park benchmarking*, London: internal document Toverland

- [19] Poiesz, T. B. C., & Raaij, W. F. v. (2002). *Synergetische marketing: een visie op oorzaken en gevolgen van veranderend consumentengedrag*. Amsterdam [etc.]: Financial Times/Prentice Hall.
- [20] Heskett, J. L., Sasser, W. E., & Schlesinger, L. A. (1997). *The Service Profit Chain*. New York: The Free Press.
- [21] Geissler, G.L. & Rucks, C.T. (2011), The overall theme park experience: a visitor satisfaction tracking study, *Journal of vacation Marketing*, 17 (2), 127-138
- [22] Ryan, C., Shuo, Y. S. S., & Huan, T. C. (2010). Theme parks and a structural equation model of determinants of visitor satisfaction—Janfusan Fancyworld, Taiwan. *Journal of Vacation Marketing*, 16(3), 185-199.
- [23] Trischler, J. & Zehrer, A. (2012), Service design: suggesting a qualitative multistep approach for analyzing and examining theme park experiences, *Journal of Vacation Marketing*, 18 (1), 57-71
- [24] Tuan, Y.F. (1998), *Escapism*, Baltimore: Johns Hopkins University Press
- [25] Lukas, S.A., *The immersive worlds handbook: designing theme parks and consumer spaces*, London: Focal Press
- [26] Ambler, T. (2003), *Marketing and the Bottom Line*, FT: Prentice Hall, London.
- [27] IAAPA (2012), *Finance in the attractions industry*, Brussels: IAAPA emerging leaders institute
- [28] Vogel, H. L. (2011). *Entertainment industry economics*. Cambridge University Press.
- [29] Cornelis, P.C.M. (2010c), A management perspective on the impact of new attractions, *Journal of Vacation Marketing*, 17 (2), 151-162
- [30] Morley, C. (2009), Dynamics in the specification of tourism demand models, *Tourism Economics*, 15 (1), 23-39
- [31] Hesmondhalgh, D. (2007). *The Cultural Industries* (2nd ed.). London: Sage Publications Ltd.
- [32] Wanhill, S. (2008). Economic aspects of developing theme parks. In A. Fyall, B. Garrod, A. Leask & S. Wanhill (Eds.), *Managing Visitor Attractions: New Directions* (2nd ed., pp. 59-79). Oxford, UK: Butterworth-Heinemann.
- [33] Kemperman, A. D. A. M., Joh, C., & Timmermans, H. J. P. (2004). Comparing first-time and repeat visitors' activity patterns in a tourism environment. In G. I. Crouch, R. R. Perdue, H. J. P. Timmermans & M. Uysal (Eds.), *Consumer psychology of tourism, hospitality and leisure* (Vol. 3, pp. 103-119). Wallingford, UK: CABI Publishing.