

Family Entertainment Centres in the United States

What is the future of local experiences?

A Thesis Submitted to the Faculty of the Themed Entertainment Design Department
in Partial Fulfillment of the Requirements for the
Degree of Master of Fine Arts in Themed Entertainment Design
at
Savannah College of Art and Design

Jan Martínez

Savannah, GA

© June 2023

Lisa Ryan, Committee Chair

Chris Peeler, Committee Member

Jason Ambler, Committee Member

Dedication

This thesis is dedicated to all the friends we made along the way.

To all who come to this happy thesis: welcome. This thesis is your thesis. Here alumni relive fond memories of the past, and here first-years may savour the challenge and promise of the future. This thesis is dedicated to the ideals, the dreams, and the hard facts that have created Themed Entertainment, with hope that it will be a source of joy and inspiration to all the world.

Acknowledgments

The list of people who helped me get here is immeasurable. Still, there are a few who I feel I must acknowledge for their help.

To my partner – Krista Jarrell – thank you for believing in me and giving me the much-needed support required while I worked on this paper. Thank you for your advice and endless encouragement.

To my family – mami, papi, Gaby, and Cristian – thank you for helping me get through this program. You keep pushing me to do better, and I always appreciate it.

To my Thesis Committee – Lisa, Chris, and Jason – thank you for agreeing to be a part of this process. Your insights have been extremely important in the making of this thesis. Without you three, this never would have come together.

To my Themed Entertainment Design professors – Greg Andrade, Bob Shreve, Jon Plsek, Bill Gorgensen, and Chris Stapleton – you have shaped this work in different ways, and you have allowed me to discover my place in this industry.

To John Hobbie – you were the first person to tell me that this thesis was not just possible, but completely viable. You believed in my aspiration to carve a different path in this programme, and for that I'm eternally grateful.

Table of Contents

Abstract	1
Introduction	2
About.....	2
Discussion on Process.....	3
Scope of thesis.....	4
Industry Report	6
Background	6
Opportunities and Impact.....	11
Industry Review	15
History	15
Differentiating an FEC	18
Technological Disruption in Entertainment	19
Data and Analysis	23
Industry Landscape	24
Demographics	28
Marketing Strategy	32
Business Design	36
Novel Opportunities.....	39
Summary	42

Business Model.....	43
Idea.....	43
Story.....	43
Potential Additional Elements	44
Attractions.....	45
Immersive Interactive	45
Next-Generation Arcade.....	46
Traditional Attractions	47
Food and Beverage	48
Merchandise	49
Lounge Spaces	49
Brand Strategy	50
Operations	52
Production.....	55
Financial	56
Conclusion	57
Appendix.....	59
Figures and Tables.....	59
References	73

Abstract

Family Entertainment Centres in the United States What is the future of local experiences?

Jan Martínez

June 2023

The Location-Based Entertainment (LBE) industry has been steadily growing over the last decade, despite setbacks due to the COVID-19 pandemic. For organisations looking to join the industry, or expand their footprint, they find themselves at a crossroads: invest large amounts in major theme parks or retail, dining, and entertainment districts (RDE); or focus on smaller attractions for a local audience. This paper aims to justify the argument that a focus on high-quality local entertainment is a more sensible investment in an industry known for variable profits. In particular, this paper focuses on the role of Family Entertainment Centres (FECs) in the US market. Following a look into the LBE market, this paper then proposes a fictional FEC – the Grid – that aims to showcase the strengths of high-quality attractions while minimising weaknesses common in local LBE attractions. The Grid serves as both a model for an idealised FEC as well as a business model for potential local attractions.

Keywords: themed entertainment; themed experience; customer experience; family entertainment; location based; marketing; service design; attraction design; augmented reality; virtual reality; entrepreneurship; arcades; amusement centres

Introduction

About

As a Guest Experience Strategist, my professional focus is creating world-class experiences that are compelling to the audience and lucrative to the organisation.

Specifically, I've been diving deep into the world of themed entertainment and location-based experiences. Common examples include theme parks, cruises, museums, art installations, and even observation decks. In this endeavour, I've started to carve out a niche where I focus on strategy and business development for this fun industry. While diving into this world, I noticed a very common issue: most great experiences are either very small or very expensive.

In the category of the former, one can look at productions by Punchdrunk as an example. As a leader in immersive theatre, one can look at their very popular *Sleep No More* as a prime example of a singular attraction that is extremely high-quality. These experiences, while worth the price of admission, are usually affairs in which people spend a couple of hours at most. As they only feature one attraction, the immersive show, they can be seen as comparable in time commitment to an outing at the cinema.

Looking towards the other extreme are major theme parks such as those put on by the Walt Disney Company or NBC-Universal. These enterprises are extraordinarily expensive, usually in the *multi-billion-dollar* range. While profitable, the necessary capital makes it cost prohibitive for any ordinary investor or entrepreneur. This means the barrier of entry in the theme park space is too high for healthy competition.

Understanding these two extremes led to the following challenge: what if we could create an experience that was a similar quality as a major theme park but at the cost of a small attraction?

My thesis is then the summation of my work answering that question. I believe that there is untapped potential for companies both big and small to create the next generation of location-based entertainment. I've used my skills in business analysis, entertainment design, customer experience, brand strategy, and systems thinking to create what I believe is an improved model for these attractions.

After analysing the Location-Based Entertainment (LBE) industry, I propose an idealised Family Entertainment Centre (FEC) that leverages the strengths of the industry while attempting to minimise its weaknesses. In particular, I create a model for a high-quality attraction that rivals those seen in flagship theme parks. This model FEC, dubbed the Grid, hopes to act as a guide for creating a better local experience than current offerings. Beyond the ideation, I prepare a preliminary feasibility study that hopes to showcase how an investment of this sort can be made profitable.

In examining the final product, I still believe that an FEC is the best investment for the LBE industry moving forward. However, I also understand that the arguments in this paper are not perfect and require further study.

Discussion on Process

Much of the process was spent on researching the Location-Based Entertainment (LBE) industry as well as the market for Arts and Recreation. Working on the hypothesis that high-quality Family Entertainment Centres (FECs) were a worthy investment, I found much support for the argument. In essence, I believe that the data

supports the idea of creating a high-value attraction which will attract local audiences for repeat visits.

However, the data also suggests that the broader LBE industry is potentially in decline. This could be due to many factors beyond the scope of this paper such as: increasing fees, decreasing salaries due to inflation, and corporate consolidation leading to indifference and fatigue at increasingly similar attraction offerings. Major macroeconomic changes, such as salaries that keep up with inflationary corporate hikes, would likely have a positive effect on LBE attractions and the broader Arts and Recreation sector. Still, one would not be alarmist if they believed this trend to be a harbinger of what is to come.

Scope of thesis

This thesis paper will be divided into three sections. The first is the current section, acting as an introduction to the scope of this paper. The second will be an industry analysis of the Location-Based Entertainment (LBE) industry and the various markets that influence the attractions industry. It will include secondary research on the LBE industry and what it means for a Family Entertainment Centre (FEC) operator. Both qualitative and quantitative methods will be used in the analysis of the data provided.

The third and final section will be a business model for a hypothetical FEC in the US that is independent of any franchises or larger entertainment brands. Using the conducted research, this FEC will attempt to leverage the strengths established by the prior section while minimising the demonstrated weaknesses. The model will include strategies for success in this space as well as clear tactics that could serve as a guide to the design and operation of an FEC.

Appendixes to this paper will include figures and tables, a pitch deck for the proposed FEC – the Grid, and a bibliography of works cited alongside with further reading.

Finally, I would like to make a note on domestic vs foreign markets. Readers might notice that I have focused solely on the United States of America for this paper. While occasionally referencing international markets, research and recommendations for Family Entertainment Centres outside of the United States is beyond the scope of this paper.

Industry Report

Background

According to the International Association of Amusement Parks and Attractions (IAAPA), a Family Entertainment Centre (FEC) is defined by the following:

“Primarily offers some combination of at least three participatory activities as well as some type of food concession or service”

(IAAPA; Euromonitor Consulting 2020)

Of course, as the largest international trade association for attractions, amusement, and Location-Based Entertainment (LBE), IAAPA's definition is as close to an “official” definition as can be found. What the reader might find interesting is the vagueness of the definition. Therein lies one of the largest hurdles one might come across when studying this topic: what *exactly* is an FEC?

To properly discuss what is an FEC, it might be wise to begin describing what *isn't* an FEC. First, an FEC is not a museum. Though some learning centres and science centres can be described as FECs (IPM News 2022), an FEC is not by definition educational. A museum, specifically, houses artifacts that are considered by some to be of cultural, artistic, historical, or scientific purpose (Oxford English Dictionary 2022). An FEC, traditionally, has no such purpose as it is purely for entertainment.

Next, an FEC is not a nature centre as its purpose is not to preserve a natural landscape. Similarly, an FEC is not a zoo or aquarium as it does not need to contain work for the preservation of fauna of any kind.

Another major classification in this industry is resorts. An important cornerstone to hospitality and tourism, a resort's main feature is a space for guests to stay and sleep (usually overnight). Though many resorts feature multiple amenities and attractions such as a pool, arcade, and fitness centre, they are distinct from an FEC.

An interesting section that one may come across is what IAAPA defines as "Other Amusement Attractions". These are explicitly stated to not be a "theme park, amusement park, zoo, aquarium, resort, water park, museum, science centre, nature centre, or FEC" (IAAPA; Euromonitor Consulting 2020). Instead, these are defined as having a singular primary activity and being an experience that is enjoyed in under two-hours. This would include attractions such as escape rooms, wax museums, and observation towers. Though similarly vague, the time spent and focus on a primary attraction is what seems to truly differentiate an FEC from other small-venue experiences.

Now comes the biggest question: what differentiates an FEC from an amusement park?

First, one should define an amusement park and how it differs from a theme park or even a water park. An amusement park is, simply put, a park with various attractions that typically focuses on "hard" or "iron" rides (IAAPA 2021). Unlike carnivals, which tend to be mobile and temporary, or public parks, which tend to focus on play and recreation, amusement parks tend to focus on rides, games, and live entertainment. Whether they be indoors, outdoors, or a combination of both, amusement parks' main attraction tends to be its rides. Noteworthy examples include Cedar Point and Six Flags.

A water park is a trivial differentiator, as it is an amusement park with a focus on water rides and water-based attractions such as a lazy river. A theme park, notably, is

an amusement park that has a coherent theme or story. Some examples include Universal Studios Hollywood and Efteling, whose themes are film and European folklore respectively. Some theme parks, such as Disney's Animal Kingdom and Chimelong Ocean Kingdom, blend the world of zoos and aquariums with the world of theme parks.

This would seem straightforward, but theme parks have been known to break the mould of being an "amusement park with a story". Two examples of this are Evermore in Utah, US and Puy du Fou in Vendée, France. The reader might start to notice an ontological problem arise, as the lines blur between categories. For some in the industry, the overriding concept for a theme park is the theming (Levine 2019). In other words, if a park has an overarching theme and story that can entertain guests for an entire day, then it is a theme park regardless of the number of rides. In this case, Everland and Puy du Fou might be considered immersive theme parks. In the case of the latter, there are shows and events that take place of traditional rides as the main attractors. As for the former, the entire park can be considered the attraction. Of course, not all experts agree with this simplified solution (Niles 2019).

Astute readers might notice that the main differentiator to an amusement park is its focus on rides – barring the above-mentioned carve-out for immersive theme parks. This raises the question: is the difference between an FEC and an amusement park the rides? As with many questions in this topic, the answer is difficult to parse.

As noted about the definition at the beginning of this section, an FEC is defined as having multiple "participatory activities" or attractions. These activities could be rides, as that is not exclusively prohibited. Following this, one might be inclined to analyse well-known FECs and find a common thread in hopes of differentiating an FEC from an amusement park.

One famous FEC chain is Chuck E. Cheese, which targets families of younger children. Most Chuck E. Cheese stores offer arcade games, stage shows, and small kids rides (CEC Entertainment n.d.). As rides are not the focal point, one can deduce that an FEC can have rides but should offer more than just rides.

A popular chain is Main Event Entertainment, recently sold to Dave & Buster's. Main Event offers arcade games, VR attractions, billiards, laser tag, and adventure park-style rope courses (Dave & Buster's Entertainment n.d.). Like its competitor and new parent company, Main Event is geared towards adults and offers a fast-casual menu and full bar. One might argue, in fact, that Main Event is a restaurant with games attached. It would seem, then, that food is an important factor specially to attract an adult audience. It also resonates with IAAPA's definition of an FEC offering food and drinks.

Another popular FEC is the chain of Legoland Discovery Centres. These are generally described as smaller versions of the popular Legoland theme parks, with a footprint of approximately 2,800-3,250 m² or 30,000-35,000 square feet (Hermann 2008). The Discovery Centres feature models built in Lego bricks, 4-D movie theatres, and small attractions such as dark rides. They will also feature more "educational" showings such as how Lego bricks are manufactured or lessons from a Lego-certified Master Model Builder (LEGO n.d.). In this case, Legoland Discovery Centres have a more diverse set of offerings that all revolve around the Lego brand.

Lastly, as with any proper discussion of FECs, one turns to the defunct Disney Quest locations. These two experiences were described as VR parks (Elder 2001), likening them more to amusement parks than traditional FECs. This follows the prior discussion on theme parks and amusement parks, as the focus of Disney Quest was its

VR attractions. Beyond those, it offered some traditional arcade games and play areas. One notable feature was its size, offering five stories of approximately 20,000 square feet (1,860 m²) each (Bishop 2018). One oft-cited circumstance for its decline is the lack of investment and regular refurbishment (Schmidt 2020). Thus, one should deduce that constant upkeep is essential for a successful FEC, more so than branding or intellectual property (IP). Yet returning to an attempt to define an FEC, it would seem that size and – by extension – time spent is an important factor. This is also echoed by the smaller footprint of Legoland Discovery Centres.

Before continuing, the author would like to discuss a related term: Urban Entertainment Centres (UEC). Also referred to as Retail, Dining, and Entertainment (RDE) Districts, these are areas that are designed to be walkable environments which promote an experiential approach to retail (StoneCreek Partners n.d.). Many outdoor malls and shopping centres have pivoted to include more of these elements. One famous UEC, and arguably one of the first, is Universal CityWalk (Nelson 2000). Opening in 1993, CityWalk Hollywood has combined elements of FECs with multiple retail options and a distinct “downtown” feel (Smith 1993). One key distinction of most RDE districts is partnership with existing retail and restaurant brands (StoneCreek Partners 2018). Though many are tied to tourist centres, some are freestanding and serve as their own anchor. Though UECs are beyond the scope of this paper, the reader will find that there is a lot of room for synergy between an RDE district and an FEC.

At this point, the author would like to refer to Potter Stewart's famous phrase as used in *Jacobellis v. Ohio*. Unfortunately, the difficulty of pinpointing the ontology of an FEC might be surmised as one will know it when they see it (*Jacobellis v. Ohio* 1964). Though many commonalities can be found between FECs, such as the audience they

cater, each one is unique. For the purposes of this paper, then, the author will use the following qualities as a barometer of what makes an FEC:

- At least three (3) attraction offerings, with rides a possibility but not a focus
- Quality food and beverage that can appeal to both adults and children
- Small footprint, preferably under 45,000 square feet or 4,200 m²
- Time spent is less than a day, or under eight (8) hours

As market research is conducted, there is the possibility that some data might not fit the above criteria. These should be considered guidelines, and not rules that define all Family Entertainment Centres.

Opportunities and Impact

Within the culinary world, there is one metric that attempts to catalogue the very best food around the world: the Michelin Guide. Though many are familiar with the Michelin stars, not all are aware of their definitions. For the reader to fully understand how Michelin rates restaurants, it is recommended the reader becomes familiar with the history of the guide.

In 1889, brothers Edouard and Andre Michelin started a tyre company. Eleven years later, there was an estimated 3,000 cars in France (ViaMichelin 2009). In order to increase demand for cars and thus demand for car tyres, the Michelin brothers released a guide for French motorists (Mayyasi 2016). As time went on, versions of the guide were published for various European countries. With each new release, the restaurant section became more and more popular. In 1931, the modern hierarchy of one (1), two (2), or three (3) stars was established. According to Michelin, the stars symbolise the following:

1. One star is worth a stop
2. Two stars is worth a detour
3. Three stars is worth a special journey (Michelin n.d.)

Knowing the history and the meaning behind the stars, it becomes clear that the Michelin Guide is, above all else, a guide for travellers. And though it was created as a metric for restaurants, the concept of the star system is useful as a metric for Location-Based Experiences (LBE).

Starting at the highest level, three (3) stars would be given to flagship experiences and major destinations. Popular examples are seen in the city of Orlando, Florida, as major theme parks are clustered in the area. For many guests, visiting Orlando, or even visiting the United States, is a journey just to visit some or all these theme parks.

Two (2) stars would be given to smaller experiences worth going to as “supplementary” experiences. Continuing the example of Orlando, Florida, many smaller experiences crop up to take advantage of the regular flow of tourists in the city. Some of these small-scale experiences include specialty restaurants such as Sleuths Mystery Dinner or experiences under “Other Amusement Attractions” such as Madame Tussauds Wax Museum.

An FEC, per the definition used in this paper, can be seen as the equivalent of a one (1) star experience. Viewed from this perspective, an FEC can be imagined as a local or semi-local experience, not one that warrants a special journey. It should be noted that this is not a statement on quality. Instead, it should be viewed as a statement of market intention. The intent of a large theme park is to attract guests from everywhere, or at least the general populous, whereas the intent of an FEC should be to attract a local audience.

In its mention of characteristics common to FECs, IAAPA mentions that many FECs tend to be a part of an entertainment or other tourist complex, such as an RDE district (IAAPA; Euromonitor Consulting 2020). Though not explicitly referring to larger cities, a tourist complex is more likely to be found in or around large cities. To the savvy reader, a mention of larger city centres might bring up a question that is unfortunately uncommon in the discussion of Location-Based Experiences: how does one appeal to low-income guests?

Most experiences that can be considered three (3) stars, tend to target households that are at least making the median income in the US – approximately \$105,673 in 2020 (Congressional Budget Office 2022). These middle-class and upper-class households will have a lot more disposable income that can be spent on leisure, entertainment, and recreation. Yet for families living in the bottom quintile, costs can be prohibitive.

Most readers will be aware that wages have not caught up with cost of living for most Americans. The Consumer Price Index has nearly tripled since 1984 (Statista Research Department 2023) while wages have doubled in the same amount of time (Bureau of Economic Analysis 2022). Similarly, in 2021, the White House released a brief that showed the bottom 60 percent of the income distribution spent 75 to 80 percent of their budgets on necessities (Council of Economic Advisors 2021). An average family of two (2) parents and one (1) child can end up spending \$2,500 for four (4) days in a major theme park (The Walt Disney Company n.d.) (NBCUniversal n.d.). For families in the bottom two quintiles making under \$50,000 this can represent a quarter of their annual income after necessities.

The author would like to note that these numbers do not include the approximately 1.2 million citizens who make a “negative income” – or spend more on necessities than their household income (Congressional Budget Office 2022). A discussion on these would be beyond the scope of this paper.

It is this disparity that one (1) star experiences, such as an FEC, can use to increase market share. By catering to local low-income guests, an FEC can leverage its distance and much lower prices to attract guests that are often overlooked by larger experience offerings. This strategy will be discussed later in this paper; but, for now the author will note that to increase the number of guests entering a local FEC, it is of paramount importance that low-income guests are included as part of the intended audience.

Once it is understood where in the LBE industry an FEC fits, a major fork is reached: should one leverage existing brands or move forward with original IP? It should be noted that for most arcade games it is nearly impossible to avoid brand names. Popular games like Pac-Man and Dance Dance Revolution are considered staples in arcades and FECs. However, should an FEC tie its identity to a singular brand?

Of course, if an FEC is being created by a major entertainment company, it would make sense to leverage its existing brand power. This is the strategy employed by Legoland Discovery Centres, for example. The powerful aspect to creating an FEC that is the intrinsic synergy with flagship destinations. The Discovery Centres, for example, serve as great marketing for guests to make the journey to a Legoland Park. And vice versa, the larger parks can push for guests to visit the smaller centres in order to increase guest lifetime revenue.

However, it is the view of this author that connection to a popular brand or IP is not a necessity to the success of an FEC. One only needs to point to the failed Disney Quest as proof of this statement, though that disregards its other faults. Instead, as will be shown later in this paper, most guests do not see brand or IP as important to their overall experience. If anything, research would suggest that brand is “icing on the cake” to a good Location-Based Experience.

Industry Review

History

A definitive history of Family Entertainment Centres (FECs) can be a difficult timeline to establish. One may begin by discussing pleasure gardens, especially the popular forms that opened to the public in London in the 17th century (Wroth and Wroth 1896, Doderer-Winkler 2013). These pleasure gardens themselves are an important evolution from arboreta, recreational parks, and botanical gardens such as the collection of Emperor Sheng Nung around 2800 BCE (Hill 1915). Pleasure gardens, and their various incarnations, are usually considered the precursors to Location-Based Entertainment (LBE) as they were built explicitly for the leisure and recreation of the public (Mondloch 2018).

Another important historical precursor is travelling fairs and the closely related periodic festivals. With the innovation of mechanical rides in the mid-to-late 19th century, many of these fairs and festivals transformed to become permanent installations (National Fairground Archive 2007). In the early 20th century, two important attractions were popularised: penny arcades and miniature golf. The former led to the development of amusement arcades, a venue dedicated to arcade games such as

pinball machines, billiards, claw crane machines, and, later, video games. These amusement arcades also saw co-evolution alongside gambling games with the advent of machines such as slots and pachinko (Gambling Commission 2022). Both kinds of attractions rose in popularity to the point that venues were built solely around these attractions.

These two types of venues, amusement arcades and miniature golf (minigolf), saw a boom in the 20th century. From these two types of venues, many others grew to capture this booming market. One popular example came around in 1977 when Nolan Bushnell created the very first Chuck E. Cheese's Pizza Time Theatre (White Hutchinson Leisure & Learning Group n.d.). However, well into the 1990s, most of these venues offered a singular attraction or a singular type of attraction – such as arcade games, minigolf, roller skating, etc. – along with a fast-food establishment (Experience UK 2020).

Here, the author would like to pause and discuss the first use of the term “Family Entertainment Centre”. Throughout the history of these small-scale venues, multiple names have been used. These include Family Entertainment Centre, Family Fun Centre, Family Amusement Centre, Children's Entertainment Centre, and Indoor Attraction Centres. They have also been simply named by their anchor attraction (e.g. minigolf, arcade, bowling, etc). This is further complicated by many outside of the industry referring to these venues as simply “small scale amusement parks” (Head Rush Technologies 2022).

Because of this, it seems that the term “Family Entertainment Centre” as an official moniker for these kinds of small-scale venues is pretty recent. The earliest official usage found by the author was when the International Association of Family Entertainment Centres (IAFEC) was incorporated in 1993 (UIA n.d.). This organisation was

then renamed International Association for the Leisure and Entertainment Industry (IALEI) which in 2009 merged with International Association of Amusement Parks and Attractions (IAAPA 2009). In this case, the naming of the organisation IAFEC seems to be both a formalisation of informal usage and an attempt to standardise a term for a type of attraction that went by many names.

With the formation of IAFEC in 1993, one sees an attempt at a formal definition of what an FEC is, along with a convergence of multiple family fun attractions into the standard model of FECs as the reader might be familiar with them today. There is one small wrinkle in that assumption, however: gambling.

Video game arcades grew out of penny machines and traditional, mechanical arcade games. The biggest of which was pinball. Pinball craze swept the mid-20th century, even before player-controlled flippers were added in 1947 (Bellis 2019, BMI Gaming n.d.). For many, however, pinball was not a game but a gamble. Famously, New York City Mayor Fiorello LaGuardia banned pinball machines in 1942 (Klein 2016). This ban ended officially in 1976, but the feeling of pinball being corrosive to youth lasted. In the late 1980s and into the 1990s, arcades began to expand and call themselves “Family Fun Centres” in order to shed the stereotype of teens playing games with no adult supervision. Although there is no indication that IAFEC formed as part of this movement to clean-up the image of amusement arcades, the reader is left to exercise their own hypotheses.

This connection with arcades raises a comparison to the golden age of arcade video games from the mid-1970s to the 1980s. In a sense, the formation of IAFEC ushered a “golden age” of FECs that lasted from the mid-1990s into the 2000s. Of course, the author would like to make clear that FECs have not necessarily been on a

decline since the Y2K era. Instead, this era could be considered the birth of the modern Family Entertainment Centre.

Differentiating an FEC

As previously mentioned, an FEC is best defined by its differences to other forms of Location-Based Entertainment (LBE). One difference comes about in its size and expected length of stay.

As an FEC can have many origins, two typical size comparisons are bowling alleys and department stores. Bowling alleys that have been turned into an FEC, or an FEC featuring bowling lanes, tend to have a large footprint. A bowling alley with 10 lanes, and no other amenities, can take up approximately 20,000 sq ft or 1,860 m² (Fusion Bowling n.d.). Adding other amenities such as an arcade, food and beverage, laser tag, or go-karting can easily double the space.

As for department stores, FECs have used retail spaces in malls previously used by department stores as their location. One of the first documented indoor locations to do this was Physical Whimsical in Colorado in 1983 (White Hutchinson Leisure & Learning Group n.d.). In that case, the space was approximately 50,000 sq ft (4,650 m²), though this is typical of department stores.

However, outdoor spaces in FECs can reach multiple acres such as the now-defunct American Adventures in Atlanta, Georgia, which featured approximately 5 acres (2 hectares) of outdoor space (L. Kent 2017). Though much larger, this is still significantly smaller than most amusement parks which are usually over 50 acres (20.2 hectares) in size.

This, naturally, leads to a reduced amount of time inside an FEC compared to an all-day outing at a theme park. For an FEC, it is expected that guests will spend

between one and six hours inside (IAAPA; Euromonitor Consulting 2020). Although the data does not explicitly show this, one might infer that time spent has a relation to visit frequency.

Another important differentiator for an FEC is the market that it serves. The average guest travels between 20 and 30 miles (32-48 km) to visit an FEC, with about a third traveling less than 5 miles (8 km). As previously mentioned, the author likened an ideal FEC to a one-star Michelin experience. This data point alone is a clear indicator that FECs have a local, community-based market. Unlike flagship parks, which can have a broad, if not global, market; an FEC should focus on marketing to local guests, preferably with repeat visits.

One final note that the author would like to point out is the use of an FEC as an event space. It is common for an FEC to be used as a space for different events, usually matching its target market. For example, Adult Entertainment Centres such as Dave and Busters are known to house corporate events or mixers, such as those for an industry association. A Children's Entertainment Centre, on the other hand, might have spaces for birthday parties and deals for children's groups, such as scouts. In the data, this is supported by group sales making up approximately one third of attendance (IAAPA; Euromonitor Consulting 2020).

Technological Disruption in Entertainment

In the year 2028, the market size for digital reality technologies – augmented reality (AR), virtual reality (VR), and mixed reality (MR) – is estimated to grow to \$252.16 billion USD (The Insight Partners 2022). At-home use, especially, has been skyrocketing. Between 2020 and 2021 alone, VR headsets saw a nearly twofold increase from 7.86 million to 14.25 million units worldwide (Statista Research Department 2022). For some in

the industry, this is seen as a harbinger of what's to come. To some, these digital reality technologies might spell the end of FECs. And to some extent, history seems to be on their side.

A direct relationship can be seen with the rise and fall of amusement arcades. As previously mentioned, the golden age of arcade video games is usually considered to have happened around the 1970s and 1980s. In 1982, the peak of this golden age, there were an estimated 24,000 full arcades, 400,000 arcade street locations and 1.5 million arcade machines active in North America with an estimated revenue of \$7 billion USD (S. L. Kent 2001, The Philadelphia Inquirer 1984). For contrast, amusement arcades are projected to grow to a market share of \$2.9 billion USD in 2024 (US Census Bureau 2020). Today, there are less than 8,000 amusement arcade businesses in the United States (Govdysh 2023).

Many point to the death of video game arcades to the crash of 1983, a recession that affected the video game industry as a whole (June 2013). Though many factors affected this industry-wide shock, what is clear is that home consoles played a major role. This is best perceived when Nintendo and Sega released their home consoles within Japan in 1983: the Famicom, released as the Nintendo Entertainment System (NES) outside of Japan, and the SG-1000.

In the midst of the video game crash of 1983, which devastated the industry in the US, Japan instead had a hard pivot away from arcades and into home consoles (Ernkvist 2008). And in 1985, the US followed suit when Nintendo released the NES in North America. Arcades could no longer keep up. The cost and maintenance of a video game cabinet was too high and demand was too low. The technology that made video game cabinets superior, such as better graphics and sound, was now

available to everyone in their own home. Home consoles had won over arcades (RePlay 1998, June 2013).

Of course, one might argue that arcades did not disappear per se, but instead became modern FECs – or a piece of modern FECs, more accurately (Boo 2018). This is not the first time that technology completely disrupted an industry without displacing it.

In the mid-1940s, the United States was undergoing major change. As World War II ended with the nuclear bombs dropped in Japan, the golden age of Hollywood ended with a “bombshell” inside people's home: television. A moment that marked the end of the studio system, and thus the end of the golden age, was the decision of *United States v. Paramount Pictures Inc.* In this landmark antitrust case, the US Supreme Court decided that film studios could not control production, distribution, and exhibition (United States v. Paramount Pictures, Inc 1948).

Film studios, of course, implemented many different strategies and tactics to move consumers away from their television sets and into cinemas. These included doubling down on their investment of colour films and creating the now-popular widescreen format, both of which televisions at the time could not reproduce (Cook and Sklar 1998). Fast-forward to 2021, and in the US there are an estimated 122.4 million TV households (Peter Hamilton Consulting; Nielsen 2023) while the value of the film box office in North America reached \$5,132.7 million (MarketLine 2022). This is a great example of a situation where technology disruption is not a zero-sum game, as television and film can coexist. However, sometimes new technology does supplant an old model.

In January of 2007, Netflix launched a streaming service featuring a catalogue of 1,000 films, a fraction of the 70,000 available for rent via DVD delivery. Then in 2007, a

joint partnership which included media companies News Corp and NBC Universal launched Hulu – which the Walt Disney Company would join in 2009 and gain majority ownership in 2019. At first, these two services were created to mimic the popularity of video-sharing site YouTube. However, these two services ended up creating a new industry that had, for all intents and purposes, not existed before: streaming video-on-demand (SVOD).

Film studios such as Disney, Universal, Warner Bros., and Paramount have embraced the new SVOD model. Broadcast, on the other hand, has suffered a devastating blow and has had trouble keeping up. One might look at TV households and notice its upward trend over the years (Peter Hamilton Consulting; Nielsen 2023), just as one might look at revenue of cable providers and similarly notice its increase (US Census Bureau 2022). However, those numbers give an incomplete picture. Indeed, by the end of 2021, roughly 47% of households did not have a traditional TV subscription – defined as a telco, cable, or satellite TV provider (Convergence Consulting Group 2022). From another view, the number of pay TV households has been on a steady decline since 2014 with less than 60 million forecasted by 2026 (eMarketer 2022). Conversely, SVOD users are expected to grow to over 180 million in the United States by 2027 (Statista Research Department 2022).

Returning to the discussion on Family Entertainment Centres (FECs), the reader can see how disruption from digital reality technologies – augmented reality (AR), virtual reality (VR), and mixed reality (MR) – can pose a threat to the location-based industry. Especially as FECs tend to be small, local venues, they are ripe for disruption. One would not be at fault for comparing this situation to that of SVOD services displacing traditional broadcast television or game consoles decimating amusement

arcades. However, the author posits that FECs should instead leverage digital reality technology, treating it as a friend not a foe.

Taking a lesson from film studios with respect to SVOD, FECs should fully embrace the disruptive technology. Especially as costs for production, installation, and maintenance decrease, an FEC can see these digital reality technologies as another offering. One example, to be detailed later in this paper, is to create a physical “blank space” that can be used for various VR attractions that can be regularly changed. This would be akin to an escape room where the puzzles are the same, but the theme is switched regularly.

Indeed, there will come a day, if it has not yet arrived, where digital reality technologies used at home will be as powerful as those used by commercial businesses. However, FECs can combine this with something that is nearly impossible to recreate at home: physical perception. While a user might race with a controller and VR headset at their home, an FEC can recreate the feeling of racing a motorcycle in a fictional planet using existing technology. Likewise, FECs can transform laser tag using AR and physical sets to have teams battling it out in a zombie-infested city.

In short, the author suggests that FECs embrace digital reality technologies as one of many offerings.

Data and Analysis

The following analysis will be using data available from a multitude of sources including, but not limited to: IBIS World, Experian, and the International Association of Amusement Parks & Attractions (IAAPA). For a full list of sources, please see the attached bibliography.

Industry Landscape

Family Entertainment Centres, as previously discussed, can be a tricky attraction type to define. Even in terms of industry analysis, they usually fall under two types of industry classifications: family fun centres and arcade/entertainment complexes. Still, combining information from various sources, one can begin to see patterns emerging within the variety of reports.

The industry segment that includes FECs can be estimated to have a value of approximately \$20 billion in the US. FECs have a profit margin between 10% and 16%, depending on the report, which is slightly lower than the attractions industry average of 17%. Compared to the larger industry of arts, entertainment, and recreation, which has a profit margin of 7%, FECs have a healthy profit. It's also worth noting that FECs have recovered from their losses due to the COVID-19 pandemic. Operations and revenue have returned to pre-COVID levels, with a low but steady growth that is notable in the industry.

Similar to the larger attractions industry, and the even larger sector of entertainment and recreation, some of the key drivers for FECs are disposable income, time spent on leisure, and consumer confidence. These factors can be quite volatile, especially with macroeconomic conditions that lead to consumers spending less on leisure such as mass layoffs, forced return to offices, and stagnant wages with increasing prices. This makes demand for FECs, and other forms of location-based entertainment (LBE), quite unstable. Add seasonality and academic schedules for children, it's no surprise that LBEs have volatile revenue.

One of the biggest challenges to FECs is entertainment options available to guests. As previously discussed, demand for at-home entertainment competes for

leisure time that can be spent in FECs. However, other forms of entertainment compete against FECs and against each other. The unfortunate truth is that all forms of entertainment and leisure fight for limited time and attention from guests. Whether it be cinema, sports, retail, video games, streaming, or major theme parks, all entertainment has to compete for the same amount of leisure time. This is exasperated by the above-mentioned macroeconomic conditions that have led to a recent drop in spending in leisure time. These conditions only worsen the unpredictability of LBE and the larger attractions industry.

Though the volatility of revenue can be seen as a weakness, FECs have figured out ways to combat this. One major factor has been a focus on the comprehensive guest experience. This includes agility in pivoting to guest demands, such as removing underperforming attractions. Agility is much easier for FECs than larger LBEs such as amusement parks. Another increasingly important factor is investing in quality food and beverage. Food and beverage, including alcoholic drinks, are a major driver for spending by adults. FECs that have invested in their food and beverage offerings have noticed less volatility and less pricing competition.

It might not come as a surprise to the reader to learn that pricing is a major differentiator for FECs. Many FECs find themselves in the unfortunate "race to the bottom" of lowering prices to beat competitors, which obviously eats into their profits. Instead, many FECs have started to successfully differentiate by offering a differing service. This includes, again, quality food and beverage. Another tactic has been to add new attractions such as rope courses and VR attractions, with an estimated 41% of FECs beginning to add VR attractions. In essence, the consensus seems to be that increasing the quality of offerings helps positively differentiate an FEC.

This leads to a counterintuitive proposition by the author. As with many service-based industries, LBEs tend to have high cost of wages – about a quarter of costs for FECs comes from wages. IAAPA, like many industry associations and lobby groups, opposes increasing minimum wage for these workers. However, what if increasing the workers' pay increases the quality? Would that not then be worth the cost?

There is a well-known maxim that goes something like “minimum wage gets minimum effort”. For FECs, who tend to hire young workers such as teenagers and 20-something year olds, their workers have a variety of options just like guests have a variety of entertainment opportunities. It might be worth for FECs to offer pay that is above-average to their local community in order to incentivise workers to give extra effort. In fact, studies support that increased wages are a much better motivator than praise or pizza parties, especially for extrinsically motivated employees – the same kind of employees who are more likely to have multiple options and not feel “loyal” to an employer such as a local FEC (Arnulf 2014, Cameron, Banko and Pierce 2001, Umar 2014, Becchetti, Castriota and Tortia 2013).

Still, one cannot ignore that employment goes far beyond money. One prominent voice that championed a new theory of motivation was Abraham Maslow. While the reader is surely familiar with his famous hierarchy of needs, his research behind this hierarchy often goes unnoticed. Maslow pioneered what is today known as the Theory Z approach, distinguishing it from Theory X and Theory Y approaches to management and motivation. If one looks at major corporations, especially those in the attractions industry, one can see the ripple effects of Maslow's work. The truly excellent workers, according to this approach, want to be motivated beyond money to survive. These employees want all their needs met. And a workplace that can provide that,

such as by creating family culture, a sense of belonging, and a connection with impactful work, will be a workplace that attracts and retains the very best employees. Again, according to Maslow, this strategy only works if basic needs are met – i.e. wages meet the standard of living.

Moving forward, FECs are expected to continue their steady growth. Despite high startup costs, new competitors are entering into the FEC market. This comes mostly from independent owners or small-scale organisations that operate a handful of locations. Large states such as California, Texas, and Florida are among the ones seeing the most growth within the United States. This growth mirrors the growth of the larger arts and recreation industry. Still, the LBE industry is in a mature stage. This indicates a slower growth, which would make an FEC the equivalent of a hot rod.

The writer Seth Godin used the analogy of sports cars as a tool to understand projects. As shown in Figure 1, Seth defines a hot rod as a sportscar that goes relatively slow but feels thrilling. It's a car in which you don't have to drive very fast or take many risks to feel like you're on the verge (Godin 2023). In the world of Location-Based Experiences, an FEC is a hot rod. The growth is slow, as with much of the entertainment and attractions industry. However, the agility of small vendors and their ability to focus on the specific demands of their community makes them a more “thrilling” option than amusement parks that cater to the general public. Of course, the author should point out that “thrilling” in this case does not refer to enjoyment, which is subjective. Instead, “thrilling” is used in a more figurative sense to refer to the nimbleness in which an FEC can adapt to trends and guest demand.

The factors discussed in this section are summarised in Figure 2 and Figure 3 as a SWOT analysis and PEST analysis, respectively. The author would like to note that a PEST

analysis was used instead of a more comprehensive PESTLE analysis. The legal and regulatory environment for FECs is very lax, compared to many other industries, and is not seen as a major factor in the near future. Similarly, the LBE industry has managed to minimise most environmental concerns posed by guests.

Demographics

An ideal LBE would be one that appeals to most, if not all, of the various consumers visiting the location. Using this approach, any LBE is made not for an idealised “average guest”. Instead, the experience centre is designed for the various “extremes” of guests. One example from the world of theme parks is *Galaxy’s Edge* by the Walt Disney Company. As a Star Wars-themed land, there are various details and design choices that are meant to appeal, and potentially only be noticed by, the most hardcore fans of the series. Simultaneously, the land is designed to appeal to the park goer who only visits Disney once in their life, has never seen Star Wars, and only wants to ride the rides. By creating a land for the two extremes, the land can appeal to everyone in the middle. This contrasts with the opposite approach as designing for an idealised middle does not always satisfy the extremes.

It follows, then, that in order to properly create a compelling guest experience, one must first understand who the guests are. While each FEC will have a different market base dependent on their community – e.g. older consumers, larger families, etc. – this paper will discuss some of the most common groups of consumers targeted by FECs. With each demographic segment, the author will offer some suggestions that might attract that specific demographic. These consumer segments will be referred to by their designations in *Mosaic USA* by Experian.

One of the first key groups is the Flourishing Families. This segment, especially groups B08 and B09, are family-centric with higher-than-average household incomes. These families are typically younger – with the Head of Household being typically under 50 years of age. They are comfortable spending and regular donors. For this segment, a partnership with a local charity would be excellent synergy. Though most have younger children, about a quarter of families in this segment have at least one teenager. An FEC should have activities that attract the parents as well as the kids, with a preference towards activities that are more athletic in nature. This can mean a range of activities from minigolf and bowling to rope courses and rhythm games.

Another similar segment is the Suburban Style, composed of mostly families living in metropolitan statistical areas. As the name suggests, this segment mostly resides in suburban zones. However, like Flourishing Families, there are groups within this segment that congregate around satellite cities. Similarly, this segment also boasts higher-than-average household incomes. For a segment such as this, exemplified by group D16, a visit to an FEC should complement their regular vacations, not attempt to compete with them. Similarly, this segment can be influenced by status and social media, as shown with group D18. This means that a regular social media presence, in the form of photo opportunities for guests to share, is key. One way to attract these families is with comfortable, well-maintained facilities along with quality food and beverage options that match high expectations. These would leverage social media use by encouraging guests to share their experiences, minimising the burden of keeping a full-time social media team.

The last segment of upper middle-class families is the Promising Families, composed of groups F22 and F23. These families are comfortable spenders, physically

active, and gamers. This segment tends to have a Head of Household under 40 years of age. This segment represents a group of families that are likely to become more influential over the next decade. For a segment such as this, an FEC might want to focus on activities that engage the parents. This could include a bar with TVs that play important sports games, especially with the local team. Another option would be offering arcade games that are more “retro” or otherwise cater to the parents.

A segment that might not seem like an ideal consumer for FECs is the Young City Solos. While some might dismiss this segment, after all it is a *family* entertainment centre, this is a very important segment for the LBE industry. This segment, composed of groups G24 and G25, are young, career-driven singles who balance work with leisure. Whether they live in mid-scale metro areas or top metropolitan statistical areas, they tend to have similar interests and lifestyles. If an FEC is in a major metropolitan area, catering to this segment of young professionals would add an extra income stream to complement the traditionally family-oriented businesses. One possibility could be a mid-week “singles night” that attracts this segment. This would avoid competition with more popular weekend entertainment options and add revenue during the typically-slower middle of the week. However, it's important to make these events gear towards this particular segment. As Young City Solos are usually highly educated, with over 80% having at least some college education, adding activities such as trivia might be of particular interest. This also adds a major social element, which is an important factor for attracting this segment. Similarly, the consumers in this segment tend to be health enthusiastic foodies. This means having food and beverage offerings that appeal to that demographic is essential.

The next segment of families is the Bourgeois Melting Pot. This segment is comprised of middle-aged, middle-class couples living mostly in the suburbs. This segment lives a mostly comfortable lifestyle, though they are conscious of their spending habits. Still, many have leisure interests that focus on outdoor activities such as boating. This is another segment for which FECs should complement their leisure and vacation, not attempt to replace it. As this is a segment that enjoys sports, the previously-mentioned option of having a bar playing games on TV would appeal to this segment. This is also the type of consumer likely to prefer activities such as a driving range or even a full golf course. One thing to note is that this segment tends to be split in terms of having children in their household, with those that do having mostly older children such as teenagers or young adults.

The other major middle-class segment is the Family Union segment. This segment shares some similar interests with the Bourgeois Melting Pot, such as being a fan of sports and preference towards outdoor activities. However, the Family Union segment is composed of households where their income comes from blue-collar, often union-based, work. This segment, like the Bourgeois Melting Pot, tends to have households where the members do not have college degrees. One notable factor is that the consumers in this segment tend to be bargain hunters. Beyond discounts for passholders or other regular visitors, an FEC here might best attract this group by partnering with other local businesses. This segment, and the following one, might be attracted to a program where they can visit the FEC, along with other activities such as the local theatre, at a discounted rate. Marketing to this segment would be favourable to the FEC as they tend to have larger households, especially group I32.

The final segment to be discussed is Cultural Connections. This includes middle-class and lower middle-class families that are typically living in or near urban areas, budget constrained, and style conscious. This segment also includes many multicultural families such as recent immigrants in gateway communities. This segment tends to enjoy recreational shopping as well as seeking novel experiences. Families in this segment tend to be small, with the exception of group P59 who tends to have large households, sometimes comprising of a single parent and their only child. An FEC that is located in a mall or retail, dining, and entertainment (RDE) district will likely have the largest chance of attracting this segment of consumers. And like with the Family Union segment, this segment would be attracted to a discount for locals, such as one that incorporates various different attractions around town. It's also worth noting that this segment, unlike any of the others discussed in this section, are more likely to use cash over credit.

The various demographic segments discussed in this section are summarised in Table 1 along with some of their key features.

Marketing Strategy

In order to know how to market an FEC, it's imperative that one first understands the *value* that an FEC offers. And the best way to understand value is to understand *why* an FEC, or any LBE attraction for that matter, exists.

Simon Sinek popularised the concept of the Golden Circle, or the idea that a transformative business should start with *why* at its core. In other words, why does the business do what it does? And, perhaps more importantly, why does it matter? The three questions, or rather types of questions, any organisation asks itself should follow the order of *why* → *how* → *what*. Now, in order to truly answer that question, one must travel to 1998.

In the 1998 July-August issue of the *Harvard Business Review*, authors B. Joseph Pine II and James H. Gilmore welcomed the world to the *experience economy*. Pine and Gilmore went on to argue that experiences are a distinct economic offering beyond a good or service. To quote from their paper:

An experience occurs when a company intentionally uses services as the stage, and goods as props, to engage individual customers in a way that creates a memorable event. Commodities are fungible, goods tangible, services intangible, and experiences memorable.

(Pine and Gilmore 1998)

From here, the authors described the four realms of experiences, summarised in Figure 4. It should be clear, then, that any Location-Based Attraction exists to stage an experience that fits into at least one of the four realms. Science centres might focus on the educational realm, while art installations emphasise the aesthetic realm. An FEC, then, can be said to offer an experience that aims for entertainment and escapism.

The *why* behind an FEC now becomes clear: to stage a memorable experience for guests. The *how* then follows closely behind: by offering entertainment and escape from the humdrum of the real world. What an FEC offers will depend on their market, but it would be some combination of attractions plus food & beverage. The value of an FEC can be gleaned from understanding the *why*, *how*, and *what* behind an FEC. A value proposition for an FEC can be generated simply by combining the three answers into one statement:

This FEC stages a memorable experience for guests by offering entertainment and escape through great attractions and high-quality food & beverage.

Of course, a full value proposition should delve deeper into the pains of guests, potential gains, and lining that up with the products and services offered. And this statement does not include that many guests also consider quality time with their friends and family a major reason for visiting an FEC. Still, this exercise is a suitable first pass at mapping the value behind an FEC. A value proposition map of this first pass can be found in Figure 5 with a value chain shown in Figure 6.

The reasoning for understanding the value proposition of an FEC is because great marketing starts with great value. In order to gain buy-in from consumers, and transforming them into guests of the FEC, one must create a value proposition that far exceeds the cost of admission. Marketing this high value, then, becomes an easy task.

Here the author would like to pause and discuss the idea of value exceeding cost. While an FEC is not a Veblen good, an FEC should follow a value-driven approach to guest service. Higher value will be able to command a higher price, up to a certain point. This is true for the entire LBE industry. Consider the price of a flagship theme park such as Magic Kingdom or Universal Studios Florida. They command a high price simply because they offer high value to guests. Some competition will even price admission highly in order to feign that perceived value. LBE attractions, as with many offerings in the experience economy, compete for value. Again, these experiences are not conspicuous leisure, but they can follow a similar price curve. Thus, a truly competitive LBE should capture as much value as possible – contrary to the idea of capturing as little value as can be afforded – and price under the perceived value. In order to do this, an FEC should find the levers that offer the most perceived value for the lowest cost. This excess, perceived value minus price, will be the differentiator for the ideal FEC.

Continuing with marketing, an FEC must find ways to constantly reach out to guest in order to maximise returns. One option is to constantly change the attraction offerings. Leveraging the economies of scale that modern technology extends, an FEC could have attractions that regularly change in order to maintain novelty and guest intrigue. An example comes from virtual reality (VR) attractions. An FEC operator can build a single physical attraction – whether that be a walkthrough or a simulator – that constantly adds new VR “tracks” each season or each year. These new “tracks” would utilise the same physical resources but offer a new experience to guests. The FEC would then advertise these new VR “tracks”. Other options include seasonal food menus and overlays for major holidays.

Another way to continuously reach out to guests is by leveraging social media. This does not necessarily mean hiring a full-time team of social media workers. Instead, this can be as simple as being an active part of users' feeds. Responding to reviews on sites like Yelp, for example, can be seen as personable. Creating photogenic facilities and memorable tags will lead to greater engagement and sharing by guests. These tactics alone will allow an FEC to attract guest by word-of-mouth (or post) without much regular input.

In terms of traditional advertising, however, that will greatly depend on local consumer trends. While older adults tend to use Facebook as their main source of social media, they are also most likely to watch cable television. These cohorts tend to have more disposable income to spend on an FEC. Similarly, young adults and teens are drivers of trends but usually have less disposable income. And theses younger consumers spend their time on various sites such as YouTube, Instagram, and TikTok. For this reason, it will be worth the time for an FEC to fully understand their unique makeup

of consumers and reach them in the optimal manner. It might be worth the cost for an FEC to engage with a marketing company that will offer strategic advice on how to best reach their target market.

Business Design

Understanding key factors in the Location-Based Entertainment (LBE) industry, one can dive into a proper design for a business model. Here the author will use the nine building blocks put forth by Osterwalder & Pigneur of a successful business model:

1. Customer Segments
2. Value Propositions
3. Channels
4. Customer Relationships
5. Revenue Streams
6. Key Resources
7. Key Activities
8. Key Partnerships
9. Cost Structure

The first few blocks have already been discussed in a prior section but will be summarised here. The first, Customer Segments, can be quite diverse and highly dependent on the location of the Family Entertainment Centre (FEC). However, most potential customers are likely to be middle-class families, with young adults a close second.

The second is the Value Proposition, discussed earlier in this paper. In short, the value of an FEC is to stage a memorable experience. As for the Channels through which an FEC reaches its guests, there can be many. Later in this section, the author describes partnering with other local businesses to co-promote the FEC along with the partner businesses. This can be considered an indirect, partner Channel, while marketing as described earlier can be considered a direct Channel.

For the fourth block, Customer Relationships, an FEC should focus on retention of guests. A new location will almost always attract attention. However, retaining guests is where most LBE attractions fail. One way to do this is by regularly changing the offerings, as previously mentioned. Similarly, an FEC might invite guests to be a part of the upcoming changes. If an FEC is considering adding a Virtual Reality (VR) track, for example, the centre could invite guests – such as passholders – to try it out beforehand and give feedback. This would essentially create a focus group of invested guests. And once these guests are invested in the FEC, by feeling like a part of the process, they are more likely to return and invite other guests.

Revenue streams are always the most difficult part for any LBE. According to research by IAAPA, the largest streams of income for an FEC come from admissions and attractions, with the latter being huge in locations that operate on a pay-as-you-go model. Beyond this, group sales are a key player in revenue. As previously discussed, guests will pay for value, so if the offerings are of high value these income streams will require little-to-no changing. One additional income stream that should be included in every FEC is food and beverage. Quality food and beverage has been shown to be a major motivator for guest satisfaction.

Next are Key Resources that are essential for the functioning of the business. In the case of an FEC, there are physical resources whose importance is undisputed. Though disruptions, such as the recent microchip shortage, are not unheard of, the attractions industry has a robust supply chain for the equipment necessary to operate an FEC. Perhaps the most important asset is an FEC's human resources. As a service-oriented business, an FEC relies on people that can facilitate the experiences offered to guests. Similarly, for an FEC to be constantly looking at changing its offering, it requires

people to analyse current trends, design new attractions, and install these experiences. Though the design and installation may be outsourced, this work is still a Key Resource.

As a service-oriented experience venture, it might seem that there are not many Key Activities for an FEC. However, there is one crucial activity that is the not-so-secret cause of death for so many FECs: upkeep. Maintenance, cleanliness, and general upkeep are Key Activities that can make or break an FEC. This is such a crucial endeavour that the number one complaint for guests, and the number one reason for not returning to a location, is uncleanliness and/or a state of disrepair. An FEC that regularly invests in upkeep of its facilities will make sure that guests feel comfortable and cared for.

Moving to Key Partnerships, one possibility is for an FEC to partner with other local attractions. An FEC can partner with a local theatre, tourist attraction, and local restaurants to offer a “city pass” that grants discounts and unique experiences to residents. This model would reduce risk by guaranteeing a certain amount of guests will visit the FEC and optimise marketing as the FEC is sharing advertising cost with all other partners. As was mentioned elsewhere by the author, it would also be optimal for an FEC to be a part of a retail, dining, and entertainment (RDE) district. This sort of partnership would optimise sales and amortise risk across the entire RDE complex.

Lastly, one must analyse the cost structure of an FEC. As part of the argument behind this paper, the author proposes that FEC focus on being a value-driven business rather than a cost-driven business. While the latter is constantly worried about minimising costs wherever possible, the former concentrates on creating more value for guests than the cost of admission. This is the reasoning for the value proposition discussed earlier. This also makes intuitive business sense as an FEC has relatively fixed

costs, though they may vary seasonally. Though many might consider the human resources to be a varied cost, salaries and wages will be a fixed Key Resource as the ideal FEC is constantly spending on innovation and new offers.

These components have been integrated into a business model, using the Strategyzer Canvas, in Figure 7.

Novel Opportunities

The Location-Based Entertainment Industry, with a handful of exceptions, tends to be a regional industry. As previously discussed, most attractions and experiences tend to draw in guests from the surrounding geographical area. In the US, this might mean guests from around the state or from one state over. Most exceptions tend to be in top metropolitan cities such as New York City, London, Hong Kong, and Paris; or, cities with a large draw for international tourists such as Dubai, Cairo, and Barcelona. Attractions in these areas benefit from the influx of regular tourism. One interesting allowance is the Central Florida region, specifically the Greater Orlando Area, whose major attractions are the draw for regular tourism in contrast to most other attractions in other major tourist cities.

This is important to reiterate because, outside of these major cities, most Location-Based Experiences will cater to the local demographic. This is a key reason for the argument behind this paper: Family Entertainment Centres are the optimal choice for leveraging local entertainment compared to other options. An FEC is more agile than a full amusement park and requires a smaller capital investment. On the other end, an FEC can offer more options for various types of consumers than a singular experience attraction such as minigolf or an escape room. Additionally, an ideal FEC is

anchored to a larger retail, dining, and entertainment (RDE) complex, such as a mall, which will synergistically bolster sales of the various businesses.

This last point leads to an interesting phenomenon with FECs: the use of existing commercial real estate. One early record of an FEC using previously existing real estate was in Physical Whimsical in Colorado in 1983, which took the space of what used to be a department store. This concept, the author posits, is one of the most cost-effective ways of leveraging the synergy of an FEC within an RDE complex. As commercial real estate finds itself at a crossroads with most malls and shopping centres closing, or “dying” as it is sometimes called, using the existing infrastructure for an FEC might be a way to both reduce capital costs for the FEC and revitalise the shopping centre.

This is especially true in towns and cities that are growing but currently do not have many entertainment options. As work from home increases, along with companies moving out of high cost-of-living cities, smaller communities are flourishing with an influx of new residents. However, many times these communities might not have the entertainment infrastructure for the increasing number of families. Even suburban areas and satellite cities, which connect to a more populous metropolitan city, can often lack options beyond chain restaurants and a cinema. Bringing an FEC to these communities will give families an entertainment option that can complement the experience of a vacation destination.

Another way to reduce initial capital investment is by leveraging existing AI tools in the initial idea generation phase. Many times, FECs and other attractions can find themselves “reinventing the wheel” as it were, instead of using established models for success. These tools, such as Dall-E and Chat GPT by OpenAI, will complement the idea generation process by allowing for faster iteration. Using AI tools alongside established

methods can be seen as akin to working with a team comprised of experienced designers and fresh talent: combining proven methods with new input.

A tactic that might seem counterintuitive, in that it requires a larger investment to do well, is creating an immersive story experience for guests. This can take many forms, but usually involves a combination of live actors and interactive equipment. This style of experience should be planned as early as possible when ideating on an FEC, as it works most effectively when the experience is fully in-tune with the story and theme behind the FEC. This can take many forms from non-linear, immersive storytelling as seen in *Sleep No More* by Punchdrunk to sporadic interactives that add immersion such as Spell Spots within *Wizarding World* at Universal Studios. If done well, this experience will at least increase the amount of time guests spend at the FEC, which will increase spending by the guests. However, a well done interactive, immersive experience can also lead to an increase in merchandise sales – e.g. wands that offer different spells.

One final opportunity is allowing for the use of an aesthetic, “free roam” space that has no established purpose. The premier example of this comes from Meow Wolf installations. The various installations are made with the mindset that guests can choose how to enjoy the installation. Some guests might passively appreciate the art, as with a gallery. Others might take pictures for social media. And some guests will interact with the installation, occasionally finding easter eggs and hidden rooms. Though an FEC does not need to copy this exact model, it's worth noting the incredible success of an installation whose purpose is for visitors to do *whatever* they want. This mindset might prove to be extraordinarily helpful for FECs as a way to give agency to guests while minimising expenditure. An example might be partnering with local artists during the design of the FEC so that there are installation areas scattered throughout the space

that guests can do what they will with. A well-made installation that is aesthetically pleasing, hides easter eggs for guests to find, and connects with a larger story for the FEC will create intrigue and drive repeat visits. In combination with an interactive, immersive experience, these installations can add value in multiple ways to guest experiences.

Summary

The Location-Based Entertainment (LBE) industry is mature yet growing. And with increasing competition, there is space for a Family Entertainment Centre (FEC) to grow and capture more of their local market. To be successful, an FEC should leverage current technological disruptors such as virtual reality and augmented reality. However, to truly differentiate itself from other attractions following these trends, an FEC should aim to capture value through memorable experiences. This could include the aforementioned digital reality technologies, aesthetic spaces, immersive storytelling, and high-quality food & beverage. These experiences, combined with smart social media strategies, will leverage word-of-mouth marketing. As for increasing repeat visits, an FEC should consider regularly changing its offerings to maintain novelty without sacrificing popular appeal. In general, an FEC should aim to complement the experiences that guests usually reserve for vacations through excellent entertainment and fun escapism.

Business Model

Idea

This section will act as a business plan for an idealized Family Entertainment Centre henceforth known as The Grid. This centre will be placed inside of a fictional mall in what used to be a two-story department store. The Grid has no connection to any existing intellectual property (IP), brand, or franchise. Any similarity with real life people, organisations, or locations is merely a coincidence.

The Grid offers guests the chance to leave the “real world” behind and step inside the world of computers. It will feature a combination of unique, next-generation attractions, alongside classic offerings. By weaving a more complex story than a usual FEC, the Grid encourages repeat visitation so that guests might continue to discover the mystery lurking beneath.

A plan layout of the Grid can be seen in Figure 8 and Figure 9.

Story

Famed billionaire, Jack Bakers, made a name for himself as the leading innovative mind of a cutting-edge technology company, DisruptNet. It changed the way most users connect to the internet by allowing deeper integration with their online selves. His latest product claimed to pave the way for the Singularity: The Grid. The Grid promised to finally allow guests to fully immerse themselves inside the complex network that makes up the internet. No computers, no VR goggles, no devices necessary. The Grid, Jack claimed, would be a gateway to a new world.

However, the day before opening, Jack suddenly vanished. To make matters worse, a hacktivist group known as RiseForce has stolen all of Jack's work and scattered it online. DisruptNet managed to use their cybersecurity team to hide all the documents and company secrets. But as the saying goes: once it's online, nothing can ever truly be deleted.

Unfortunately, the launch of the Grid has been met with criticism. Bugs are omnipresent in the software. Occasional glitches create strange phenomena, and viruses are breaking through the firewall. Guests are encouraged to join the Bug Bounty program and save the Grid, for a reward of course. Along the way, DisruptNet only asks that one doesn't look too deeply into the source code. They insist their proprietary information stay secret.

Despite the circumstances, guests are invited to visit the Grid to celebrate the culmination of all of Jack's work. However, guests should be careful not to stray too far from the walled gardens of the Grid. The internet can be a dangerous place if one is not careful.

Potential Additional Elements

The Grid is meant to be a fully immersive entertainment experience. However, the option exists for the venue to serve a dual purpose as an educational centre as well. Leveraging group visits from schools and after-school organisations, the Grid could potentially offer a miniature course on technology. As technology becomes ubiquitous in both cultural and professional spheres, the Grid can act as the spark that makes students more interested in designing and maintaining the future of technology.

Another potential element is adding a play-from-home element. While the Grid will offer a smartphone companion app, described later, an expansion might include a

version of the in-venue game that could be played from anywhere. Experience and digital items gained could then be used while at the Grid.

Beyond the scope of this paper is the idea of franchising the concept behind the Grid. Franchising allows owners to minimise risk and diversify their revenue. One way to reduce costs while reusing designed elements is to design the attractions and attraction spaces to be modular. This would allow them to be swapped out more easily or installed in other centres. Story elements could also allow for various locations that offer slightly different experiences such that a guest wanting the full story experience would need to visit all locations. This could even culminate in a larger flagship experience, such as a full theme park in Central Florida. The combination of local centre and flagship theme park would allow for synergistic marketing of each other. A guest at the local centre would want to visit the theme park for the full experience, while a guest at the theme park would want to visit their local experience in order to continue the story.

Attractions

Immersive Interactive

The flagship experience for the Grid is a non-linear, scavenger-hunt-like game that makes use of augmented reality (AR). The game, which is played using guests' smartphones and purchased peripherals, allows guests to join the DisruptNet Bug Bounty program. They can create their own avatar, solve puzzles, and fight viruses. With each successful bug "squashed" by the guests, they gain experience (XP) which can be traded for new avatar styles, digital items, and in-game weapons.

The peripheral used for the game is a device called Bit Drive, made to look like a retro-futuristic computer component. This device will allow guests to track their progress

and XP in the game. It will also act as their key to explore the hidden rooms and compartments within the Grid. Without the Bit Drive, guests can still solve puzzles and play games, but they will not progress in the story.

The AR game will also connect with an in-venue alternate reality game (ARG) that explores the secrets behind DisruptNet and the disappearance of its founder Jack Bakers. Using live actors, the operation team members, guests will slowly uncover secret puzzles and hidden compartments. However, members of DisruptNet don't want their secrets out in public. Guests will have to find the members of RiseForce who have infiltrated the company and determine their next move.

As guests play, they will find internal DisruptNet documents scattered throughout the Grid. They can turn in these digital documents to DisruptNet for in-game items. Or they can partner with RiseForce and put together a "dossier" of information against Jack Bakers and his company. As they read through memos and listen in on private calls, guest slowly realise that the famed Jack Bakers is not the hero he's made himself to be. In a surprising twist, Jack Bakers and DisruptNet have been using their customers' online personas to become the kingmakers of everything. In essence, DisruptNet's true goal is to become the ultimate power broker firm.

Next-Generation Arcade

Leveraging digital reality technologies, the Grid will offer a few different types of next-generation attractions. These attractions will feature technologies such as augmented reality (AR), virtual reality (VR), and/or mixed reality (XR).

The first is a racing game where guests ride a motorcycle-like vehicle across the internet. The story is that each guest is a "packet" of data that must reach the other

node in time. However, viruses might try to disrupt the game forcing guests to defend themselves on their trip across the network.

The second is a collaborative game in which a group of guests join a futuristic ship and act as a defence unit cleaning up the local network of malicious actors. Each guest will be given a different role (pilot, gunner, technician, capture, etc.) and must work together to rid the network of unwanted bugs.

The last attraction is multigame bay, exemplified in Falcon's GameSuite. This ecosystem allows for multiple games such as virtual bowling, digital golf, or a simulated shooting range. By partnering with the manufacturer, games can also be custom designed that match the story of the Grid. This can include a game where players face an onslaught of virus-infected programs and must use various tools and weapons to clean up the server.

All three of these attractions have the potential for new tracks to be added after their instalment. Taking the racing game as an example, routes can be changed to match the current season – such as winter holiday special. Similarly, brand new routes and items could be added each year, encouraging guests to revisit and try the new version.

Traditional Attractions

Beyond the next-generation arcade, the Grid will offer attractions that might be more familiar to casual guests. These will be less story-driven but still offer connection to the overarching theme.

The first is a virtual roller coaster such as EnterIdeas's AT360 or even Triotech's XD Dark Ride. The small footprint of a virtual coaster allows for maximum usage of space.

The technology also allows for predetermined tracks, like a standard coaster, or player-controlled adventures for full immersion.

A popular attraction offering is a gun-less laser tag attraction such as the one offered by ZTAG. Here, two teams are pit against each other, with each team having a “healer” that brings tagged-out players back into the game. The game can be scaled to appeal to older players by adding obstacles and hurdles, akin to those used by World Chase Tag. To match safety needs, a seasoned partner such as Whats Running would be used in order to make a safe arena. Additionally, items could be added that offer various effects, such as a wider “tag” range or instant healing. This attraction could also hold variations on the game such as Capture the Flag mode.

Another popular attraction is a VR game platform such as the Monolith by VRsenal. This platform allows for players to choose from multiple games while keeping the footprint and maintenance low. Similar to laser tag, this platform can hold variations such as solo or multiplayer games.

On the first floor of the Grid, there will also be a kids' zone for smaller children. It will be divided in two: one half being a soft-foam play area for toddlers, the other half a more traditional indoor playground for younger kids. These areas will be separately gated for the children's safety.

Lastly, a classic arcade area will feature various retro games from the Golden Age of arcades alongside modern offerings. These might include games such as Galaga and Pacman alongside newer games such as Angry Birds and Fruit Ninja.

Food and Beverage

As previously mentioned in this paper, high quality food and beverage is an important part of a successful Family Entertainment Centre. The Grid will be no

exception to that rule. To showcase the interconnectedness of the digital world, the Hash House will feature dishes from around the world. The menu will feature unique items that represent each of the six major continents (North and South America, Europe, Asia, Africa, and Oceania). The items themselves will highlight popular international flavours in novel combinations.

An example menu can be seen in Figure 10.

Merchandise

The Grid will offer three main types of merchandise. The first will be the classic branded apparel. This will include t-shirts that represent the two main factions in the story: DisruptNet and RiseForce. The second will be a collection of plushies that represent various terms and components of the digital world. This might include a collection of cute computer viruses inside mystery boxes.

Lastly, the Grid will sell peripherals that play into the venue-wide ARG. The main peripheral being a wearable device called Bit Drive made to look like a retro-futuristic computer component. An example of this device can be seen in Figure 11.

Lounge Spaces

Beyond the attached lounge chairs with the gaming bays, the Grid will feature a lounge area on the first floor. This area will sit between the dining area and the kids' zone. This will serve double duty as extra seating for busy periods and an area for parents to relax while their children play.

This position will encourage consumption by subtly persuading parents to enjoy a snack, appetiser, or drink while their children enjoy the Grid. By placing it on the first floor near the main entrance and exit, this position also gives parents peace of mind that their kids are safe inside the Grid at all times. There is the possibility of adding a

small stage near this area for local musicians to play. This would encourage guests to spend more time listening to the music and buying drinks.

Brand Strategy

The key to creating a compelling brand strategy is to start with the value that a brand offers. For the Grid, the value comes from the experience offered. This leads to the natural question: is the experience offered at the Grid more valuable than other comparable options?

As a brand, the Grid is a unique take on the Family Entertainment Centre (FEC) model. Most FECs offer arcade games, perhaps one group activity such as bowling or go-karts, and some food. The Grid offers unique experiences, such as the multi-game bay, along with a venue-wide experience that offers high re-playability. These offerings alone are uncommon within the location-based industry, especially among traditional FECs. Additionally, the Grid will offer high-quality food comparable to many casual dining options. Lastly, the Grid will be part of an indoor shopping mall, which allows for guests to add the value of visiting other retailers. These three elements are major advantages when compared to most local entertainment, with the exception of cities that have a major amusement park.

Another factor worth mentioning is that the Grid will be an aesthetic experience as well as one that is entertaining. Many FECs, unfortunately, are either too confused in their design or have not been well maintained. This leads to dissatisfaction by guests, which in turn hurts revenue. By creating a venue that is aesthetically pleasing, guests will be more likely to enjoy their experience at the Grid. This strategy also has the added bonus of creating an opportunity for guests to share photos and videos with friends and

followers on social media. This creates a natural opportunity for viral marketing that requires little input from the operation.

Understanding the position that the Grid holds when compared to local entertainment, one can begin to see what the branding should focus on. Specifically, branding for the Grid should emphasise how unique it is. It might even be worth mentioning that is not only unique for the area, but also a unique concept worldwide as no other FEC combines these elements. The brand should emphasise that guests have autonomy to create their own experiences, while alluding to the mysterious disappearance of the founder Jack Bakers and the larger story of the Grid. These two points should be balanced so as to not overshadow one or the other.

One example is the marketing for Meow Wolf's Omega Mart. On its surface, the installation is branded as a "normal" supermarket. However, the marketing materials make it very clear that, true to the Meow Wolf brand, there is an aspect that is strange and otherworldly to the installation. These hint at a larger story that is only grasped while experiencing the installation, along with real world easter eggs.

Though the brand for the Grid is decidedly different, the intention should be similar. The Grid is a place where guests can create their own experiences – through games, attractions, and photo opportunities – but it also holds a deeper secret waiting to be explored. The balance of these two components is essential as they hit on the two intended quadrants of experience: entertainment and escapism. Entertainment is granted by giving guests a variety of offerings that appeals to most consumers, while escapism happens through immersion in the story and lore of the Grid. This also appeals to two major types of experience consumers: those who just want some mindless fun and those who want to be invested in a novel adventure.

From here, one can combine these insights with the demographic analysis done in a prior section. As the groups targeted were mostly middle-class families, focusing on those sections one notices an important trend: entertainment options for the entire family. These consumers are much more likely to prefer entertainment options that offer something for everyone. For this reason, choosing attractions that are accessible to multiple groups, such as the multi-game bay or the virtual coaster, will make the Grid a much more attractive option. And as local, single-day experience, most families will see the Grid as an addition to their regular leisure and not a replacement. This is important as this kind of local experience should supplement and not compete with major vacation experiences.

Post-pandemic, one can see a surge in more experiential spending. This includes events such as concerts all the way to theme park attendance. Though major economic trends – such as stagnant wages, rising costs, and operational stalling – threaten to cool this demand, hospitality and tourism are continuing to operate at pre-pandemic levels. Location-based experiences are taking advantage of this by differentiating their offerings to compete on levels other than price. The Grid offers a compelling experience while keeping prices below perceived value.

Operations

As previously discussed, many local entertainment offerings such as Family Entertainment Centres find themselves at a “race to the bottom” when it comes to pricing. For many small businesses, their differentiating factor becomes beating low prices instead of capturing higher value. The Grid aims to forge a middle path by offering high value at a competitive price. The pricing strategy, based on current

trends, is to offer a day pass with limited access and an annual pass or membership pass that offers discounts and greater benefits.

The day pass would be priced at \$30 for adults and \$20 for children and elderly guests. It would allow for access to one virtual attraction, such as the motorcycle race, and \$20 in arcade funds. These arcade funds could be replenished as necessary by the guests. The membership pass will be priced at \$10 a month for adults and \$8 a month for children and elderly guests. This pass will be paid annually. These passes will allow for unlimited visits, including unlimited access to the virtual attractions. They will also offer a 15% discount on food and 50% discount on arcade funds. Lastly, the membership passes will include an exclusive, members-only Bit Drive peripheral for use in the immersive experience. These prices are visualised in Table 2.

The multi-game bays will be considered an added experience, needing to be reserved by the hour. Pricing will begin at \$25 for the first hour with \$10 for each additional hour thereafter. Members will be able to reserve a multi-game bay for \$15 for the first hour.

Looking at the other side of the financial models, one must consider cost of labour. Here, the author will focus on operational wages. To match the current trend of raising minimum wages, the Grid will start hourly wages at \$15 per hour for operations team members with a \$2 per hour premium for specialty roles such as cooks, security, and maintenance. Area managers will be paid \$20 per hour while the general manager will receive a salary of \$60,000 per year, or approximately \$28.85 per hour. These numbers suggest a daily cost of wages of less than \$9,000 which could be offset by 400 day guests, not including food or extra purchases. This is summarised in Table 3.

The opening hours for the Grid will be subject to change once operating, depending on real-time demand from locals. Based on current trends, the Grid will open from 11am-10pm Monday through Thursday and 10am-12am Friday through Sunday. These hours reflect trends by current Family Entertainment Centres and are subject to change to better meet demand. There is the possibility of offering longer hours during the summer, as most children will be out of school and looking for fun ways to spend the day with friends. Similarly, due to potentially lower demand, the Grid might close on Tuesdays and Wednesdays during the school year.

As with many local entertainment offerings, the Grid will happily host group events in the venue for marked down prices. These can include birthdays and summer camps, where each guest is given a day pass for a marked down price. The Grid will also offer private rooms in case these events would like to sing "Happy Birthday" or otherwise hold a private gathering. Lastly, a pre-arranged discounted menu would be available for parties who would like the Grid to cater their event.

To match demand, the Grid might offer specialty evenings to increase traffic during the slower weeknights. One option is an adults-only night, or "babysitter night", where only guests over 18 are allowed inside the Grid. The appeal would be to young adults especially who would want to visit the venue without the burden of children. Another option would be a trivia night at the Hash House where guests can relax and play trivia with friends.

Lastly, the team members at the Grid are the soul of the venue. In order to maximise enjoyment and guest satisfaction, the Grid will be particular to hire team members who are willing to go the extra mile for guests. This will include training all new team members on the backstory and lore behind the Grid, encouraging them to play

along with guests. Beyond training and onboarding, team members will be continually supported by managers and the organisation at large to make decisions and take responsibility for the operation in order to create the best experience possible. These incentives could even exist as quarterly bonuses that are paid out to team members dependent on revenue goals being reached. This would incentivise the entire team to work towards a positive experience, as doing so will lead to a bigger bonus.

Production

The design for the Grid will draw inspiration from various sources, with a nod to retro-futurism. The design will pull elements of synthwave and cyberpunk with geometric qualities similar to modernism. In general, the overriding principle is for the venue to make guests feel like they are stepping into cyberspace.

As previously discussed, one of the biggest difficulties for starting a Family Entertainment Centre is the start-up costs. By using an existing space, the department store inside of a mall, the cost of construction is lowered dramatically. However, rerouting electrical and plumbing will still be a major cost to consider. Similarly, the Grid aims to be a world-class venue with lots of technological equipment. This could offset the cost that is saved by not building a new facility.

By the same hand, in order to accomplish the goal of creating an aesthetic space that is worth the price of admission alone, time will need to be allocated towards creating aesthetic works. One option is to partner with local artists of various mediums that can design and create unique art pieces. These artists can then fabricate the installations as they see fit and partner with the Grid in order to install it. As the space for

these physical installations will be limited, artists will also be invited to create digital pieces that can be shown in various screens throughout the venue.

Assuming average conditions, the Grid will take at least 14 months to complete. The first six months will focus on nailing details of the master plan and creating construction documents that are up to code. Many of the arcade elements are off-the-shelf but some experiences, such as the multi-game bay, will require partnership with a vendor for design and fabrication. The rest of the time allotted will focus on construction, with fabrication of said unique experiences taking a large portion of that timeframe. A timeline of this production can be found in Figure 12.

Financial

The overall cost to create the Grid is estimated at less than \$18 million as shown in Table 4. This estimate includes capital expenditures, project expenses, and talent acquisition. Though on the higher end, this cost is within reason for a Family Entertainment Centre of its size and scope. One option to reduce initial costs is to partake in a shared-revenue model with arcade vendors. This is an option offered by many, but not all, vendors and usually includes free equipment with a 50-50 revenue split. This can cut down start-up costs by 10% but, notably, will lead to lower profits.

As for operational expenses, the Grid is estimated to run expenses of about \$10 million annually. These higher operating costs come from the focus on maintaining the venue and higher wages due to the expected raising of the minimum wage, as shown in Table 5.

Revenue, as explained earlier in this paper, is expected to be volatile as it is for any location-based experience. However, the Grid is expected to be a profitable

investment in both the short and long term. The author believes that the Grid, given the right market conditions, could reasonably accommodate 500,000 annual guests. Still, with only 200,000 annual guests, the Grid generates approximately \$1.7 million in profit as shown in Table 6. The number of guests can be seen as reasonable given that most large malls see over 2 million annual visitors, with large malls in major cities having over 10 million annual visitors. The low estimate of 200,000 guests for the Grid would represent capturing less than 10% of those visitors.

In order to finance this operation, the Grid would want to raise \$25 million in order to cover start-up costs and partial operating costs. Given the numbers presented in this section, the Grid would recoup its initial investment in 15 years.

While many investors and venture capitalists might prefer to see initial investments regained in less than a decade, the author would like to note that the revenue model uses conservative estimates for foot traffic and spending. Doubling the amount of guests to 400,000 annually increases profit to approximately \$10 million, which allows for initial investments to be regained in only 30 months. This would still be conservative spending by guests, such as lower-than-average food consumption.

Conclusion

The Grid, though far from perfect, will feature attractions that are proven staples of Family Entertainment Centres (FECs) while integrating brand-new offerings. By leveraging digital reality technology, the larger attractions can easily add new tracks and games that invite repeat visits. The focus on quality and aesthetics, such as the partnership with local artists, allow for natural social media presence as guests share

their experience. Similarly, the increased investment in food and maintenance will create a venue that outperforms the traditional FEC model.

While the return on investment might seem lower when compared to other sectors, such as technology, it can be seen as comparable to other FECs and location-based attractions. The author posits that an FEC focused on creating a high-quality experience usually only found in major flagship experiences such as Disneyland will lead to regular and repeat visits by locals. By partnering with existing retail spaces such as malls, shopping centres, or other similar locales then an FEC can significantly decrease its cost and capital expenditures.

In short, while the Grid might never come to fruition, the author hopes that the model it represents will guide the development of FECs into a new era.

Appendix

Figures and Tables

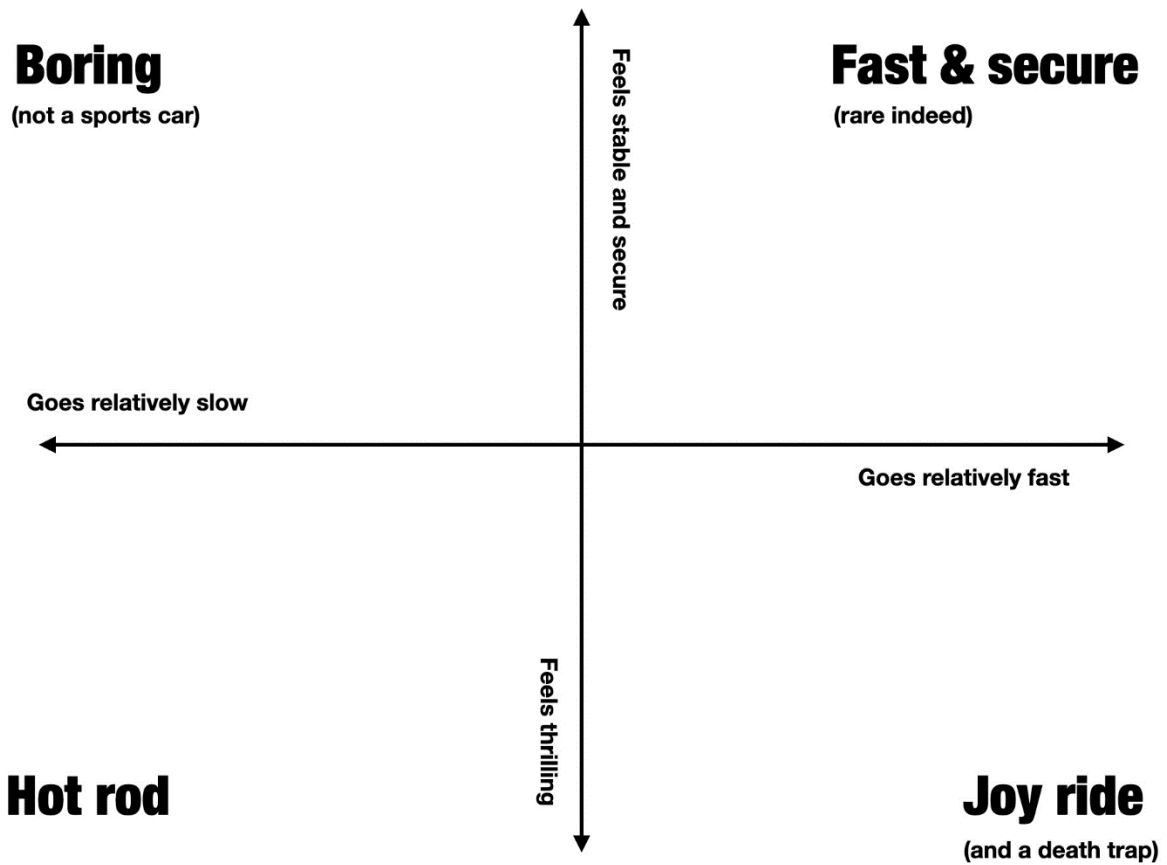
Figures

Figure 1 – The Sportscar Quadrants	60
Figure 2 – SWOT Analysis	61
Figure 3 – PEST Analysis	61
Figure 4 – The Four Realms of Customer Experience	62
Figure 5 – Value Proposition Map	63
Figure 6 – Value Chain	64
Figure 7 – Business Model Canvas	65
Figure 8 – Plan Layout Floor 1	66
Figure 9 – Plan Layout Floor 2	67
Figure 10 – Hash House Menu	68
Figure 11 – Bit Drive	69
Figure 12 – Production Timeline	70

Tables

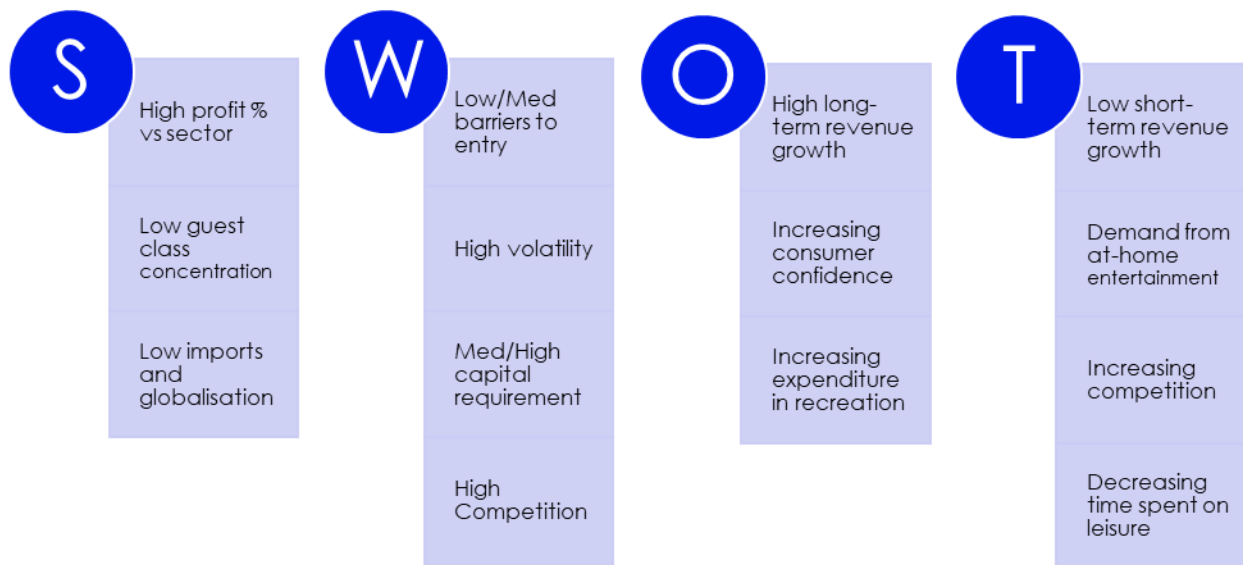
Table 1 – Demographic Analysis Summary	62
Table 2 – Pricing Breakdown	69
Table 3 – Average Daily Wages Breakdown	70
Table 4 – Start-Up Costs.....	71
Table 5 – Annual Operational Expenditure.....	72
Table 6 – Expected Revenue (200K annual guests)	72

FIGURE 1 – THE SPORTSCAR QUADRANTS

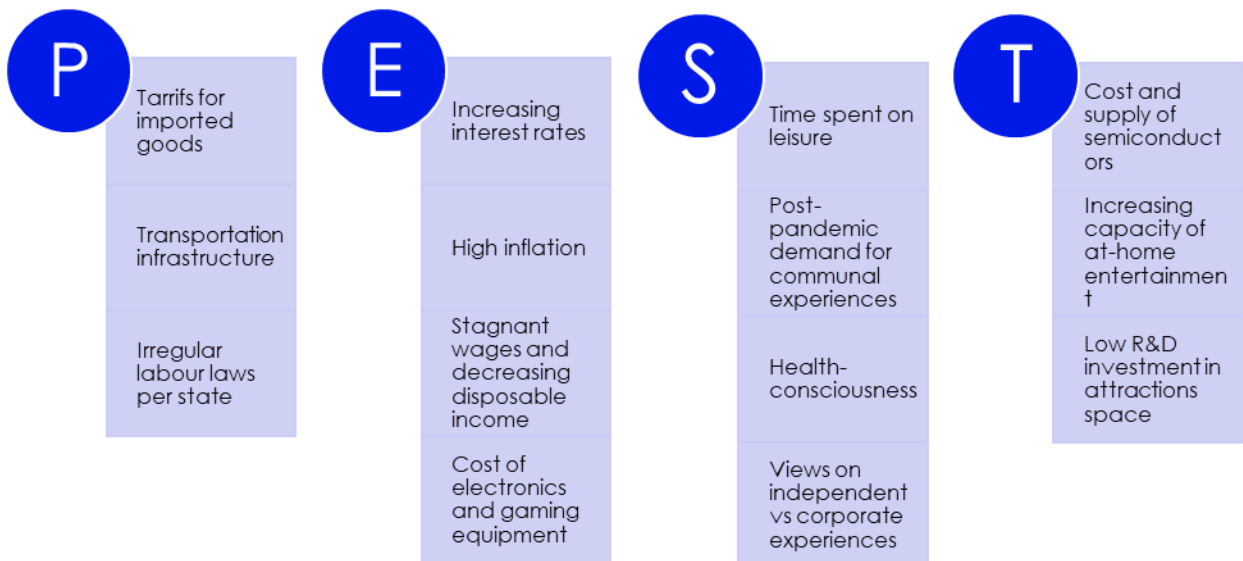


Source: <https://seths.blog/2023/02/the-sportscar-quadrants/>

Notes: A representation of types of sports cars based on speed and thrill, used as a metaphor for types of projects.

FIGURE 2 – SWOT ANALYSIS

Notes: An analysis of the Strengths, Weaknesses, Opportunities, and Threats present for a Family Entertainment Centre.

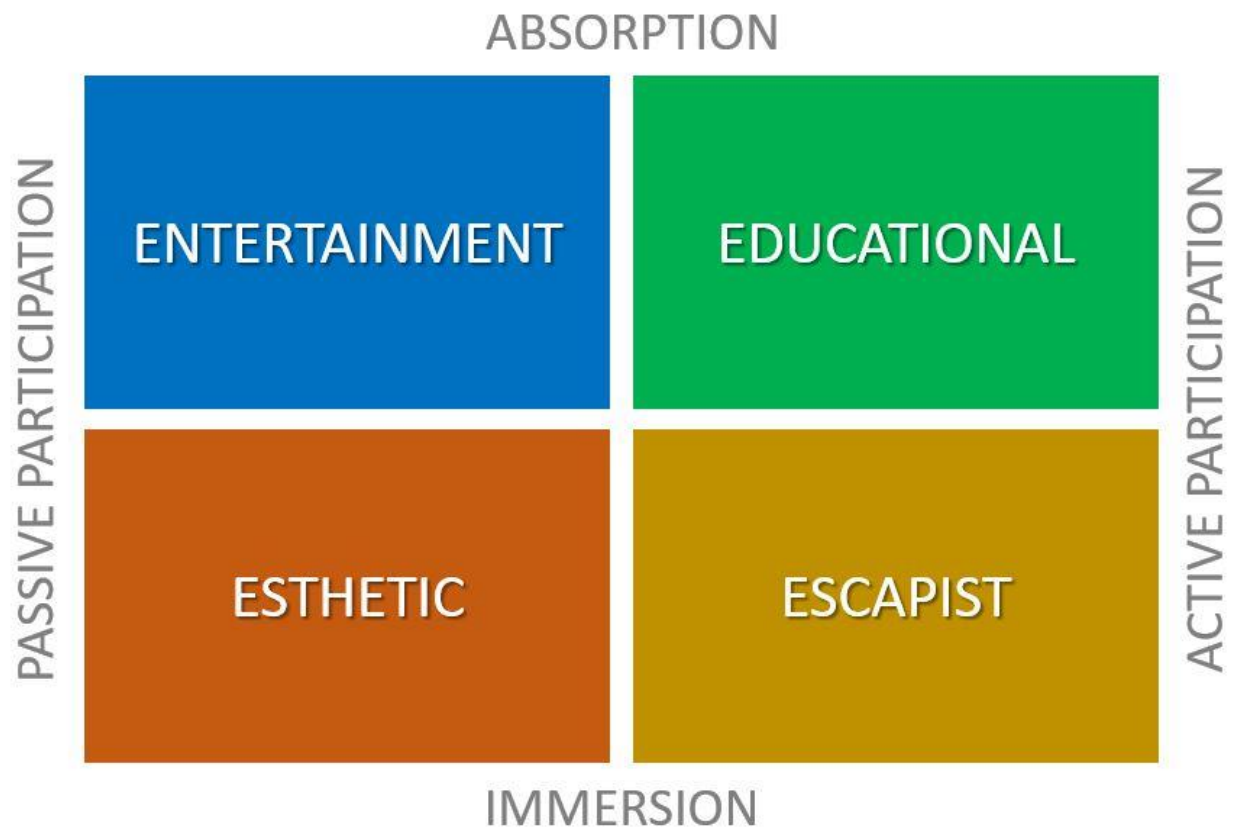
FIGURE 3 – PEST ANALYSIS

Notes: An analysis of the Political, Environmental, Social, and Technological factors that might affect a Family Entertainment Centre.

TABLE 1 – DEMOGRAPHIC ANALYSIS SUMMARY

	Income	HoH Age	Structure	Notes
Flourishing Families	\$125k-\$150k	35-65	Married w/ kids	Donors, affluent, family-centred, active
Suburban Style	\$75k-\$125k	35-50	Married w/ kids	Outdoor activities, family-centred, status seeker
Promising Families	\$75k-\$125k	25-35	Married w/ kids	Tech-savvy, gamers, music lover, no-worries spender
Young City Solos	\$75k-\$100k	25-40	Single	Active, well-educated, foodies, health enthusiast
Bourgeois Melting Pot	\$50k-\$100k	35-65	Married	Comfortable, outdoor recreation, sports
Family Union	\$50k-\$75k	30-65	Married w/ kids	Blue collar, bargain hunters, large households
Cultural Connections	\$15k-\$50k	35-65	Most w/ kids	Cash, stylish, novelty seeker, budget conscious

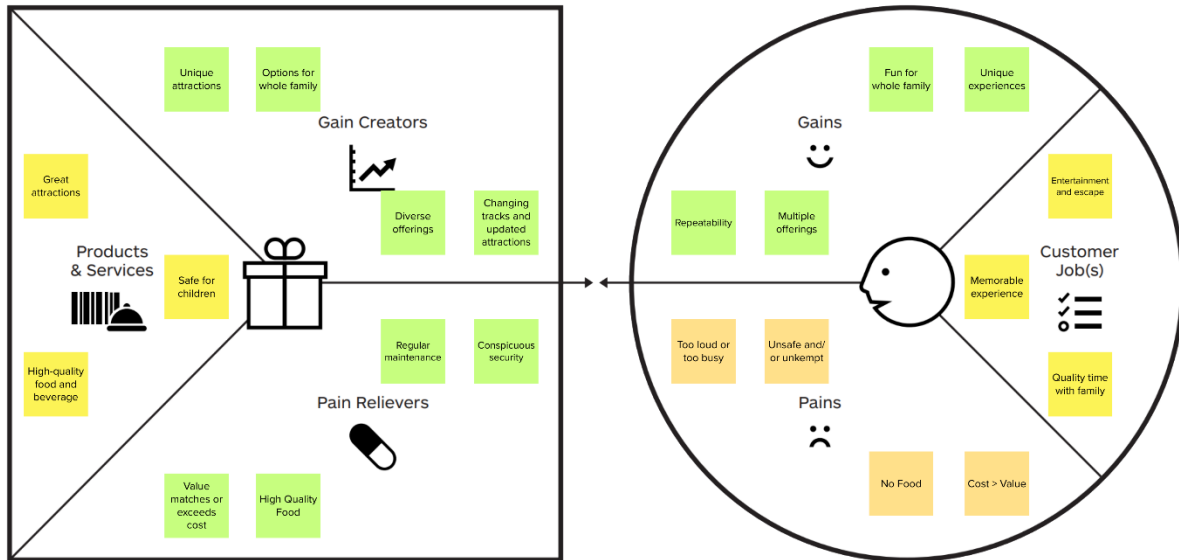
Notes: A table summarising the seven main consumer demographics that a typical Family Entertainment Centre might target.

FIGURE 4 – THE FOUR REALMS OF CUSTOMER EXPERIENCE

Source: (Pine & Gilmore 1999)

Notes: A figure representing the four main quadrants of an experience.

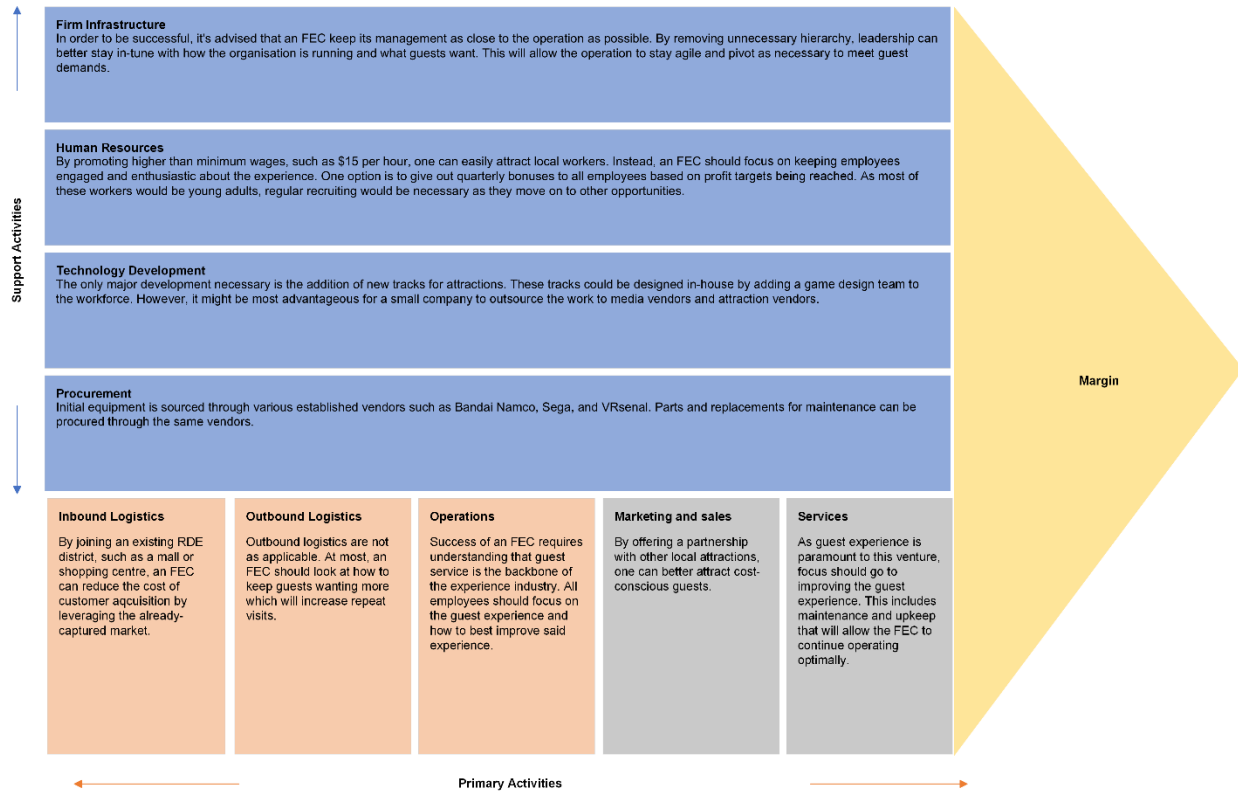
FIGURE 5 – VALUE PROPOSITION MAP



Source: Strategyzer.com and Strategyzer AG

Notes: A value proposition map that visualises the offerings of an ideal Family Entertainment Centre and how they interact with the needs and wants of a typical consumer.

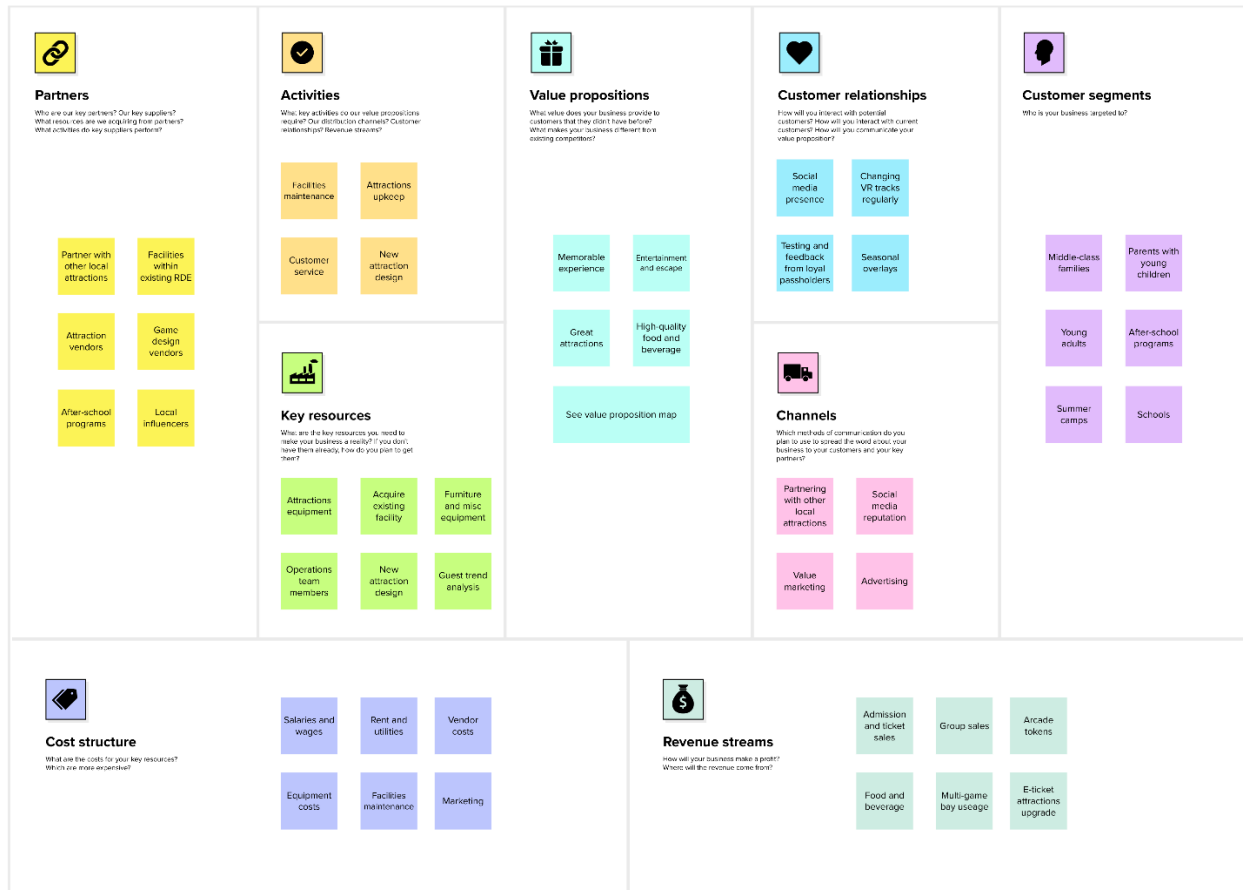
FIGURE 6 – VALUE CHAIN



Source: (Porter 1985)

Notes: A visualised value chain for an ideal Family Entertainment Centre

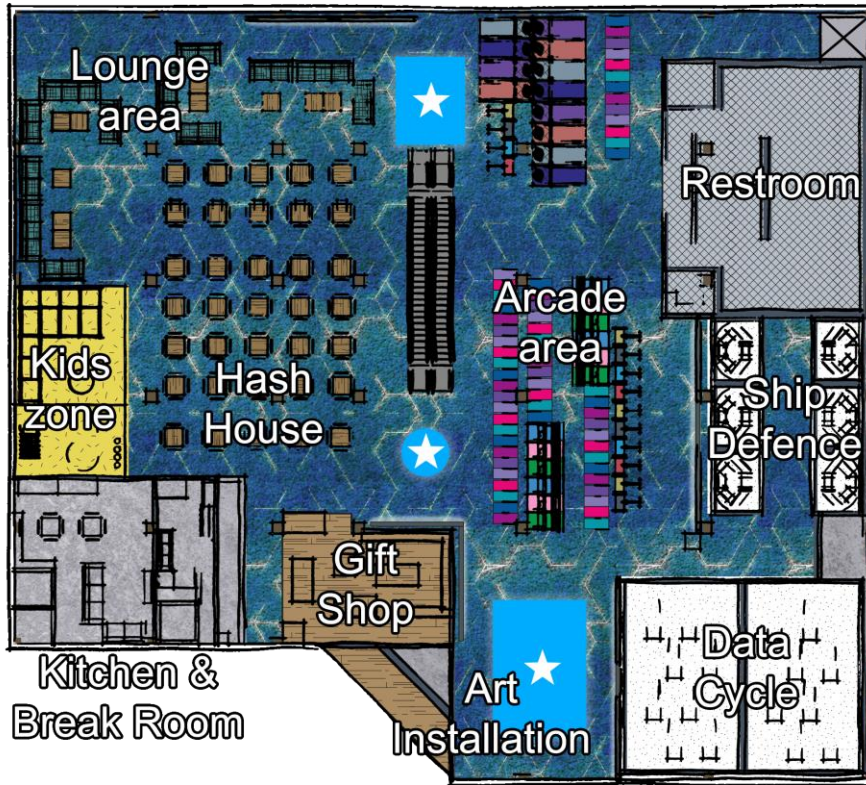
FIGURE 7 – BUSINESS MODEL CANVAS



Source: Strategyzer.com and Strategyzer AG

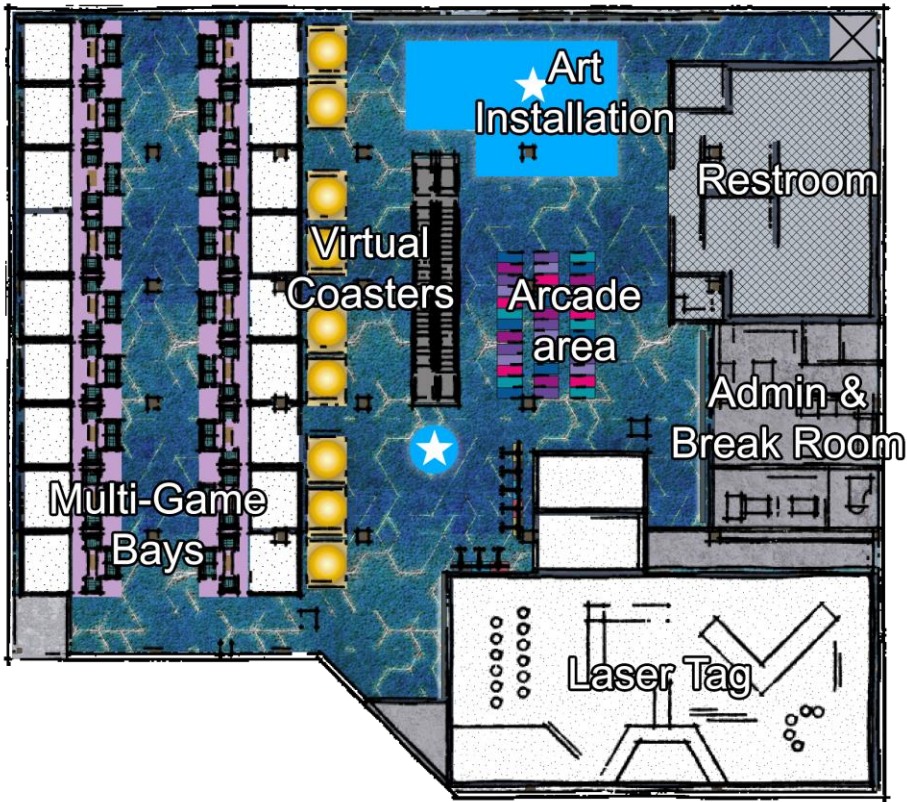
Notes: A visual representation of the business model behind a successful Family Entertainment Centre as discussed in this paper.

FIGURE 8 – PLAN LAYOUT FLOOR 1



Notes: A coloured floorplan of the conceptual layout for the first floor of the Grid.

FIGURE 9 – PLAN LAYOUT FLOOR 2



Notes: A coloured floorplan of the conceptual layout for the second floor of the Grid.

FIGURE 10 – HASH HOUSE MENU

Hash House
The Global Internet Cafe

Main Menu

Poutine Nachos
Fries covered with melted cheese, refried beans, and peppers




Bratwurst Paella
Spiced rice dish with bratwurst

Curry Soup with Tofu Dumplings
Coconut curry soup served alongside tofu dumplings

Steak Arepas with Sweet Plantains
Sandwiches stuffed with steak served alongside sweet plantains

Falafel Samosa with Jollof Rice
Samosas stuffed with falafel served alongside a spiced rice dish

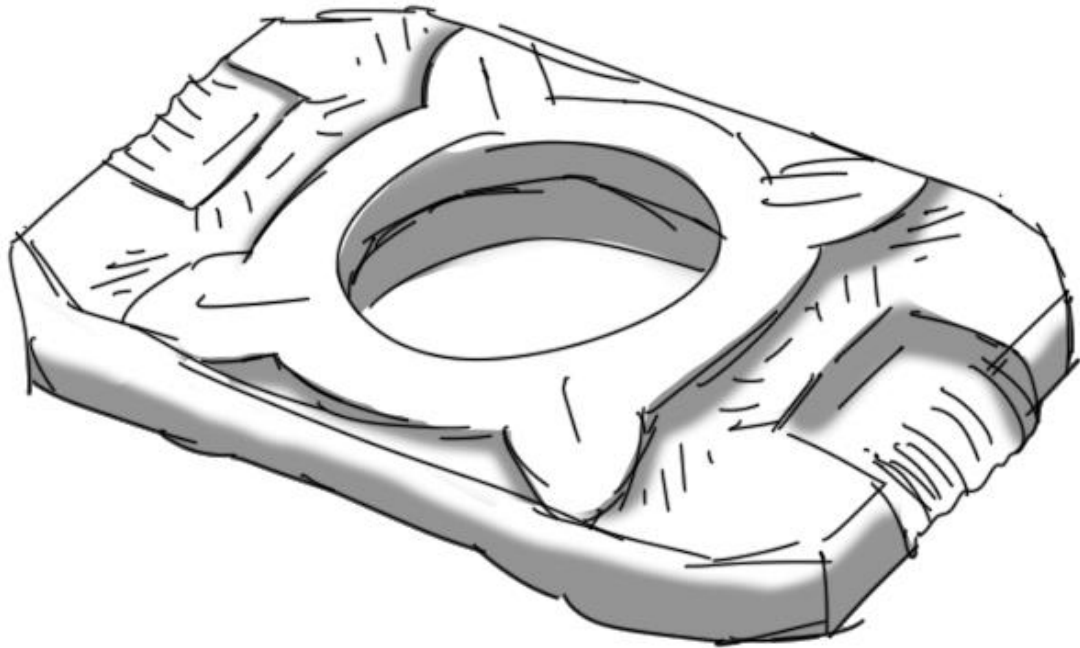
Seafood Pie
Savoury pie filled with a sweet and sour seafood medley

Beverages
Coke   
Tea
Coffee
Water

Kid's Menu
Mini Sliders
Pepperoni Pizza
Mac and Cheese

Ask about vegan substitutions

Notes: An example menu of the Hash House featuring unique items that combine international flavours

FIGURE 11 – BIT DRIVE

Notes: An example of the Bit Drive, a purchased device that allows guests to make the most of the venue-wide immersive game at the Grid

TABLE 2 – PRICING BREAKDOWN

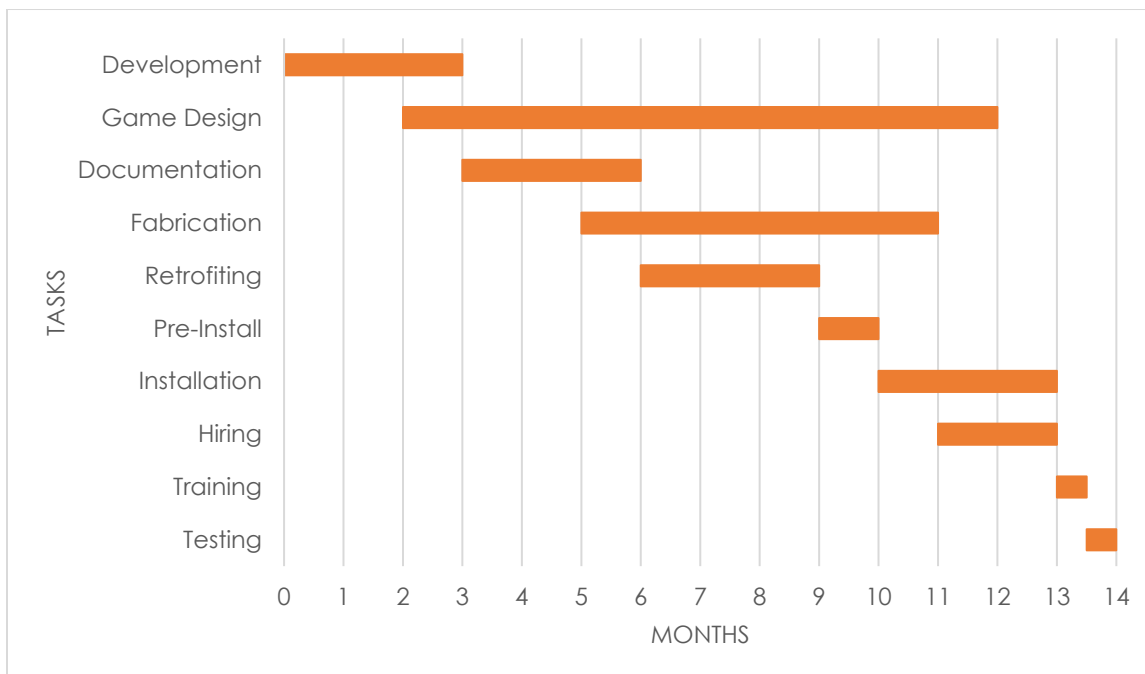
	Member	Non-Member
Arcade	20 tokens Additional \$1 = 2 tokens	20 tokens Additional \$1 = 1 token
Virtual Attraction	Unlimited	1 included
Food Discounts	15%	N/A
Multi-Game Bay	\$15 first hour \$10 each additional hour	\$25 first hour \$10 each additional hour

Notes: A table breaking down the pricing of the two major types of consumers for the Grid – members or passholders, and non-members or day guests.

TABLE 3 – AVERAGE DAILY WAGES BREAKDOWN

	Hourly Wage	People	Hourly	Daily
Operations	\$ 15.00	30	\$ 450.00	\$ 3,600.00
Cooks	\$ 17.00	8	\$ 136.00	\$ 1,088.00
Maintenance	\$ 17.00	8	\$ 136.00	\$ 1,088.00
Security	\$ 17.00	8	\$ 136.00	\$ 1,088.00
Area Manager	\$ 20.00	8	\$ 160.00	\$ 1,280.00
General Manager	\$ 28.85	1	\$ 28.85	\$ 230.80
Total	\$ 114.85	63	\$ 1,046.85	\$ 8,374.80

Notes: A breakdown of daily wages for an average day of operation for the Grid, amortised for seasonality and fluctuating demand.

FIGURE 12 – PRODUCTION TIMELINE

Notes: A timeline for the production of the Grid from concept development to opening.

TABLE 4 – START-UP COSTS

Group	Item	Cost	Total
Project Team			\$ 300,000.00
	Director	\$ 150,000.00	
	Producer	\$ 150,000.00	
Development			\$ 170,000.00
	Show Writer	\$ 30,000.00	
	Game Designer	\$ 30,000.00	
	Interior Designer	\$ 40,000.00	
	Master Planner	\$ 40,000.00	
	Concept Artist	\$ 30,000.00	
Game Design			\$ 1,200,000.00
	Game Designer	\$ 100,000.00	
	Animator (x3)	\$ 300,000.00	
	Mobile Developer (x3)	\$ 300,000.00	
	Software Engineer (x5)	\$ 500,000.00	
Construction Documentation			\$ 100,000.00
	Architect	\$ 50,000.00	
	Civil Engineer	\$ 50,000.00	
Artist Partnership			\$ 5,000,000.00
Retrofit			\$ 1,150,000.00
	Clean Up	\$ 100,000.00	
	Plumbing	\$ 350,000.00	
	Electrical	\$ 350,000.00	
	HVAC	\$ 350,000.00	
Pre-Install			\$ 200,000.00
Equipment			\$ 3,660,000.00
	Furniture	\$ 50,000.00	
	Kitchen Equipment	\$ 100,000.00	
	Arcades	\$ 2,000,000.00	
	Multi-Game Bays	\$ 450,000.00	
	Virtual Attractions	\$ 360,000.00	
	WiFi and Telecom	\$ 100,000.00	
	Show Set and Props	\$ 500,000.00	
	Misc. Equipment	\$ 100,000.00	
Installation			\$ 3,000,000.00
Hiring			\$ 50,000.00
Training			\$ 125,000.00
Testing/Soft Open			\$ 125,000.00
Misc. Contingency			\$ 2,000,000.00
Total			\$ 17,080,000.00

Notes: A breakdown of start-up costs for the Grid including capital expenditures, project expenses, and talent acquisition.

TABLE 5 – ANNUAL OPERATIONAL EXPENDITURE

Description	Cost
Employee Wages	\$ 3,056,802.00
Employee Benefits	\$ 917,040.60
Rent	\$ 2,500,000.00
Maintenance	\$ 1,000,000.00
Utilities	\$ 150,000.00
Internet/Phone	\$ 50,000.00
Food and Beverage	\$ 1,000,000.00
Licensing and Rental Fees	\$ 700,000.00
Business Services	\$ 250,000.00
Misc. Expenses	\$ 200,000.00
Total	\$ 9,823,842.60

Notes: A breakdown of average annual operational expenditure for the Grid.

TABLE 6 – EXPECTED REVENUE (200K ANNUAL GUESTS)

Description	Per person	Total
Ticket sales (avg. 2 adult, 1 child)	\$ 18.00	\$ 3,600,000.00
Food	\$ 15.00	\$ 3,000,000.00
Multi-game bay	\$ 5.00	\$ 1,000,000.00
Arcade tokens	\$ 10.00	\$ 2,000,000.00
Virtual Attraction	\$ 5.00	\$ 1,000,000.00
Merchandise	\$ 5.00	\$ 1,000,000.00
Total	\$ 58.00	\$ 11,600,000.00

Notes: Breakdown of expected revenue given 200,000 annual guests.

References

- Arnulf, Jan Ketil. 2014. "Money as a motivator." *BI Business Review*, 13 November.
- Becchetti, Leonardo, Steffano Castriota, and Ermanno C. Tortia. 2013. "Productivity, wages and intrinsic motivations." *Small Business Economics* 379-399.
- Bellis, Mary. 2019. "The History of Pinball." *ThoughtCo.*, 21 September.
<https://www.thoughtco.com/history-of-pinball-1992320>.
- Bishop, Rollin. 2018. *The dream of DisneyQuest is dead*. 18 October.
<https://www.polygon.com/features/2018/10/18/17888722/disneyquest-disney-vr-closed>.
- BMI Gaming. n.d. *The History of Pinball Machines and Pintables*.
<https://www.bmigaming.com/pinballhistory.htm>.
- Boo, Bernard. 2018. "Arcades: The Comeback of a Dying Industry." *Den of Geek*, 4 October. <https://www.denofgeek.com/games/arcades-comeback-gaming-dying-industry/>.
- Bureau of Economic Analysis. 2022. "Distribution of Personal Income." Suitland.
- Cameron, Judy, Katherine M. Banko, and W. David Pierce. 2001. "Pervasive negative effects of rewards on intrinsic motivation: The myth continues." *Perspectives on Behavior Science* 1-44.
- CEC Entertainment. n.d. <https://www.chuckecheese.com/>.
- Congressional Budget Office. 2022. "The Distribution of Household Income, 2019." Washington.

Convergence Consulting Group. 2022. *Share of TV households without a traditional TV subscription in the United States from 2014 to 2022*. Convergence Consulting Group.

Cook, David A., and Robert Sklar. 1998. "The threat of television." *History of film*. Edinburgh: Britannica, 23 August.

Council of Economic Advisors. 2021. *The Cost of Living in America*. Washington: The White House. <https://www.whitehouse.gov/cea/written-materials/2021/08/11/the-cost-of-living-in-america-helping-families-move-ahead/>.

Dave & Buster's Entertainment. n.d. <https://www.mainevent.com/>.

Doderer-Winkler, Melanie. 2013. *Magnificent Entertainments: Temporary Architecture for Georgian Festivals*. Yale University Press.

Elder, Robert K. 2001. "What went wrong at DisneyQuest?" *Chicago Tribune*, 16 July. http://articles.chicagotribune.com/2001-07-16/features/0107160127_1_disneyquest-family-entertainment-entertainment-companies.

eMarketer. 2022. *Number of pay TV households in the United States from 2013 to 2026*. eMarketer.

Ernkvist, Mirko. 2008. "Down Many Times, but Still Playing the Game." *History of Insolvency and Bankruptcy: from an International Perspective* 161-191.

Experience UK. 2020. *The Rise of Family Entertainment Centres*. 19 February. <https://www.experienceuk.org/blog/the-rise-of-family-entertainment-centres>.

Fusion Bowling. n.d. *Bowling Alley Lane Dimensions*.

<https://www.fusionbowling.com/bowling-alley-installers/bowling-alley-lane-dimensions>.

Gambling Commission. 2022. *Family entertainment centre*. 27 October.

<https://www.gamblingcommission.gov.uk/licensees-and-businesses/licences-and-fees/family-entertainment-centre>.

Godin, Seth. 2023. "The Sportscar Quadrants." *Seth's Blog*, 17 February.

Govdysh, Alexander. 2023. *Arcade, Food & Entertainment Complexes in the US*.

IBISWorld.

Head Rush Technologies. 2022. *What is a Family Entertainment Center?* 13 September.

<https://headrushtech.com/blog/family-entertainment-center/>.

Hermann, Andrew. 2008. *A little local Legoland headed our way*. 15 June.

<http://www.suntimes.com/lifestyles/travel/extras/1006187%2CTRA-News-legoside15.article>.

Hill, Arthur W. 1915. "The History and Functions of Botanic Gardens." *Annals of the Missouri Botanical Garden* (Annals of the Missouri Botanical Garden) 185-240.

IAAPA. 2021. *2020 Annual Report*. Orlando: IAAPA.

—. 2009. *IALEI Dissolution / IAAPA Merger Plans Final*. 9 October.

<https://web.archive.org/web/20100207000131/https://www.iaapa.org/pressroom/pressreleases/IALEIDissolutionIAAPAMergerPlansFinalRelease.asp>.

IAAPA; Euromonitor Consulting. 2020. *IAAPA Family Entertainment Center Benchmark Report for FY2019*. Orlando: IAAPA.

IAAPA; Euromonitor Consulting. 2020. *IAAPA Other Amusement Attractions Benchmark Report for FY2019*. Orlando: IAAPA.

- IPM News. 2022. "U.K.'s National Space Centre delivers space-themed experience combining mixed media and immersive theatre." *InPark Magazine*, 5 October. <https://www.inparkmagazine.com/national-space-centre-tetrastar-spaceport/>.
- Jacobellis v. Ohio*. 1964. 378 U.S. 184 (U.S. Supreme Court, 22 June).
- June, Laura. 2013. "For Amusement Only: the life and death of the American arcade." *The Verge*, 16 January. <https://www.theverge.com/2013/1/16/3740422/the-life-and-death-of-the-american-arcade-for-amusement-only>.
- Kent, Leland. 2017. *American Adventures*. 27 July. <https://abandonedseast.com/2017/07/27/american-adventures/>.
- Kent, Steve L. 2001. *The Ultimate History of Video Games*. Prima Publishing.
- Klein, Christopher. 2016. "That Time America Outlawed Pinball." *History*, 15 November. <https://www.history.com/news/that-time-america-outlawed-pinball>.
- LEGO. n.d. <https://www.legolanddiscoverycenter.com/>.
- Levine, Arthur. 2019. "What is the Difference Between a Theme Park and an Amusement Park?" *Trip Savvy*.
- MarketLine. 2022. *Movies & Entertainment Retail in North America*. MarketLine Industry Profiles.
- Mayyasi, Alex. 2016. *Why Does a Tire Company Publish the Michelin Guide?* 23 June. <https://priceconomics.com/why-does-a-tire-company-publish-the-michelin-guide/>.
- Michelin. n.d. *To the Stars and Beyond*. <https://guide.michelin.com/en/to-the-stars-and-beyond>.
- Mondloch, Maria Christine. 2018. *A Brief History of Fun: An Exploration & Education of the History of Themed Entertainment*. Savannah College of Art and Design.

National Fairground Archive. 2007. *Fairground Rides - A Chronological Development*.

The University of Sheffield.

<https://web.archive.org/web/20071218004854/http://www.nfa.dept.shef.ac.uk/history/rides/history.html>.

NBCUniversal. n.d. *Tickets, Packages, & Prices*.

<https://www.universalorlando.com/web/en/us/tickets-packages/park-tickets>.

Nelson, Jim. 2000. "The Real Mastermind behind CityWalk." *Los Angeles Times*, 24 April.

Niles, Robert. 2019. "So what, exactly, is a theme park, anyway?" *InPark Magazine*, 20 August.

Oxford English Dictionary. 2022. "'museum'." *OED Online*. Oxford: Oxford University Press, December.

Peter Hamilton Consulting; Nielsen. 2023. *Number of TV households in the United States from season 2000-2001 to season 2021-2022*. Documentary Television Business.

Pine, B. Joseph, and James H. Gilmore. 1998. "Welcome to the Experience Economy." *Harvard Business Review*.

RePlay. 1998. "Coin-Op history -- 1975 to 1997." *RePlay Magazine*.

Schmidt, Nathan. 2020. "The History Behind DisneyQuest and its Defunct Expansion." *AllEars*, 13 June. <https://allears.net/2020/06/13/the-history-behind-disneyquest-and-its-defunct-expansion/>.

Smith, Doug. 1993. "Celebrating L.A. Icons: Universal CityWalk is for Real--Almost." *Los Angeles Times*, 25 May.

Statista Research Department. 2022. *Number of video-on-demand users in the United States from 2017 to 2027*. Statista Digital Marketing Insights.

Statista Research Department. 2023. *U.S. monthly CPI of all urban consumers December 2021-2022*. Statista Digital Marketing Insights.

<https://www.statista.com/statistics/190981/monthly-unadjusted-consumer-price-index-in-the-us-since-april-2010/>.

Statista Research Department. 2022. *Virtual reality (VR) headset sales volume worldwide from 2017 to 2027 (in million pieces)*. Statista Digital Marketing Insights.

StoneCreek Partners. n.d. *Retail-Entertainment*. <https://adventure-entertainment.com/retail-entertainment-consultants-and-designers/>.

—. 2018. *Universal CityWalk Roll-out Program*. 19 August. <https://adventure-entertainment.com/mca-recreation-group/>.

The Insight Partners. 2022. *Augmented reality (AR), virtual reality (VR), and mixed reality (MR) market size worldwide in 2021 and 2028 (in billion U.S. dollars)*. 2022 March.

The Philadelphia Inquirer. 1984. "Can Lasers Save Video Arcades?" *The Philadelphia Inquirer*, 3 February.

The Walt Disney Company. n.d. *Standard Theme Park Ticket*. <https://disneyworld.disney.go.com/admission/tickets/theme-parks/>.

UIA. n.d. *International Association for the Leisure and Entertainment Industry (IALEI)*. <https://uia.org/s/or/en/1100040000>.

Umar, H Akmal. 2014. "Effect of Wages, Work Motivation and Job Satisfaction on Workers' performance in Manufacturing Industry in Makassar City." *European Journal of Business and Management*.

United States v. Paramount Pictures, Inc. 1948. 334 U.S. 131 (US Supreme Court, 3 May).

US Census Bureau. 2022. *Estimated revenue of US providers of cable and other subscription programming from 2005 to 2021*. US Census Bureau.

US Census Bureau. 2020. *Industry Revenue of "amusement arcades" in the U.S. from 2021 to 2024*. US Census Bureau.

ViaMichelin. 2009. *The MICHELIN Guide: 100 editions and over a century of history*. 2 March. <http://www.viamichelin.co.uk/tpl/mag6/art200903/htm/tour-saga-michelin.htm>.

White Hutchinson Leisure & Learning Group. n.d. *What is a Family Entertainment Center?* <https://www.whitehutchinson.com/leisure/familyctr.shtml>.

Wroth, Arthur Edgar, and Warwick William Wroth. 1896. *The London Pleasure Gardens of the Eighteenth Century*. MacMillan.