# Research Finding:Optimisation of Attraction Layouts and Schedules

#### **Business Question**

How can USS optimise attraction layouts and schedules to enhance guest satisfaction and increase spending?

### **Data and Analysis**

We analysed visitor wait times and spending behavior and chose to focus on reducing perceived rather than actual queue times, given the high cost and complexity of physically relocating rides. We evaluated food ordering and merchandise purchasing behaviors, highlighting how queues deter purchases and disrupt guest flow. Additional insights were drawn from survey data, industry research, and real-world wait time datasets, showing that queue length is correlated with increased Fast Pass sales and prolonged guest engagement in the park.

## **Key Insights**

Reducing perceived wait times (e.g., through entertainment or digital queue management) is more cost-effective than relocating rides. Online ordering options can offset queue aversion and encourage spending. Longer wait times indirectly support upsells like Fast Passes and extended park stays, boosting revenue. Additionally, food and merchandise purchases increase when guests have more flexibility and reduced friction in their experience.

## **Business Impact**

USS should implement strategies that reduce perceived wait times, such as interactive entertainment and digital queue updates. Merchandise should be placed near dining outlets and featured in food ordering platforms. Encouraging guests to browse and purchase merchandise while they wait or dine can drive additional revenue. These strategies improve operational efficiency, guest satisfaction, and overall park profitability without requiring costly ride relocation.

#### **Next Steps**

USS can expand the use of data-driven scheduling and predictive analytics to improve peak time Research Findings: Optimisation of Attraction Layouts and Schedules management. Real-time monitoring of guest flow and adaptive wait-time management can help allocate resources more effectively. Integrating these insights with mobile app personalization can further drive guest satisfaction and spending. Future work should include collecting more granular visitor data to validate findings and continuously refine layout and scheduling strategies.

#### **References**

- 1. Omnico. (2018). 75% of US theme park visitors won't buy food and beverage if there are queues. PR Newswire.
  - https://www.prnewswire.com/news-releases/75-of-us-theme-park-visitors-wont-buy-fo od-and-beverage-if-ther e-are-queues-finds-omnico-664140953.html
- 2. Blumenfeld, J. (2022). Attraction wait times skewer perceived value. Arival. https://arival.travel/article/attraction-waiting-times-skewer-perceived-value/
- 3. Hernandez-Maskivker, G., Ryan, G., & Pamies, M. M. (2016). Waiting Times At Theme Parks. TOURISMOS. https://www.chios.aegean.gr/tourism/VOLUME\_11\_No4\_art10.pdf
- 4. University of South Florida. (2024). Digital food ordering drives increased indulgence and spending.
  - https://www.usf.edu/news/2024/digital-food-ordering-drives-increased-indulgence-and-spending-usf-study-rev eals.aspx
- GDI Engineering. (2023). Creating Unforgettable Experiences: Seasonal Structural Design for Theme Parks. https://gdiengdesign.com/creating-unforgettable-experiences-seasonal-structural-design-for-theme-parks-and -attractions/
- 6. LinkedIn Insights. (2024). Ride Relocation Costs in Theme Parks. https://www.linkedin.com/pulse/looking-merger-cedar-fair-six-flags-pros-cons-ride-relocation-v9hxe