SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

40.240 Investment Science

Stock Pitch

Team 4: Walt Disney

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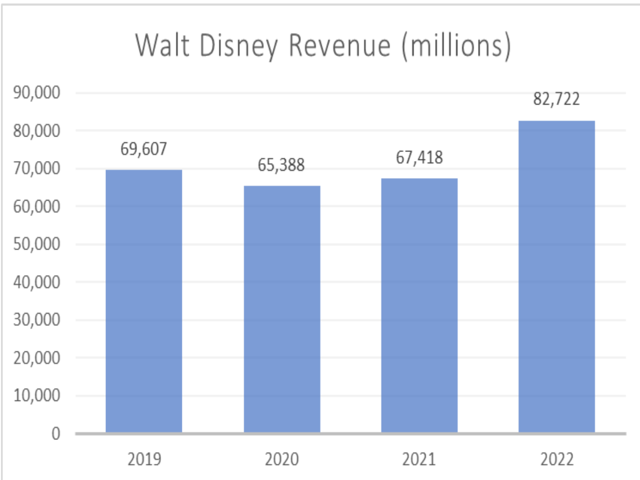
Executive Summary



Our group recommends investors to buy the DIS stock with a one year target price of $104.91. Walt Disney was originally a cartoon studio in the 1920s and has since established itself as a leading company in the entertainment industry. The company's revenue is generated from their core business segments: Disney Media and Entertainment Distribution(DMED, 66%) and Disney Parks, Experiences and Products(DPEP,34%).

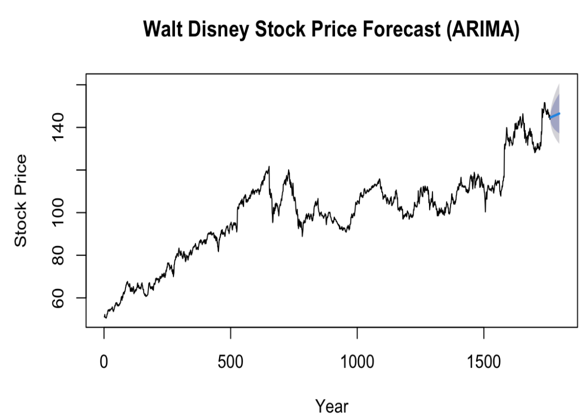
Revenue was negatively impacted by COVID-19 but has otherwise been consistently generating revenue.

One of Walt Disney's main strategies is capitalising on past content and catering to consumers' interests. This can be observed in the company's various segments. For example, in the Content Sales segment under DMED, Disney is currently implementing live action remakes such as Little Mermaid is a safe strategy to ensure a financially successful product.

Walt Disney also constantly keeps up with industry trends to stay competitive in the market. The launch of its various streaming services such as Disney+ is expected to generate profits in the coming years.

Apart from the COVID-19 period, DPEP has consistently generated revenue for Disney. Due to the price inelastic demand at theme parks, Disney has increased ticket prices to increase average per capita ticket revenue while maintaining their customer base. The recent Genie ticket upgrade gives guests the ability to save time queueing up for rides, boosting admission revenue. Disney is also efficient in introducing new attractions such as The Incredibles Meet & Greet event in their Hollywood Studios within 6 months of the release of The Incredible 2 film. This not only ensures customer retention by adjusting to consumers taste and preferences for the newer items, but also attracts new guests. Disney's plan to expand their Parks, Resort and Vacations will also allow them to satisfy consumer demand and generate revenue.

Using a decision tree model, Disney's future stock price is predicted to be $104.91 a year from 20th April 2023($97.71). Disney has always been adaptive in nature, quickly responding to changes in the industry so as to consistently generate revenue and grow as a business. Assuming a pandemic like COVID-19 will not happen again, we believe Disney will be able to continue growing its revenue with its existing business strategies and future plans. Therefore, we encourage investors to buy the stock today.



1. About Walt Disney

Walt Disney started off as an animation company and has since transformed into a conglomerate of businesses ranging from media entertainment to theme parks, experiences and products.
Walt Disney can be split into two main business ventures:

1. Disney Media and Entertainment Distribution(DMED)
- ★ Linear Networks
- ★ Direct-to-Consumer
- ★ Content Sales/Licensing

2. Disney Parks, Experiences and Products(DPEP)
- ★ Parks and Experiences
- ★ Consumer Products

Disney's business model revolves around creating unforgettable experiences for all families and kids at heart. They have been actively adapting its business model to cater to new audiences, and consumers' change in their taste and preferences to ensure they stay relevant and can steadily generate revenue.

a. Industry

There have been several changes in the entertainment industry that have impacted companies' performance, both positively and negatively. Some of the most significant changes include:

Digital Technology
The widespread use of digital technology has enabled companies to produce content more efficiently and at a lower cost. For example, animated films can now be produced entirely on a computer, reducing the need for expensive physical sets and actors. However, this has also led to a saturation of the market, with an abundance of content available, making it more challenging for companies to stand out and attract viewers.

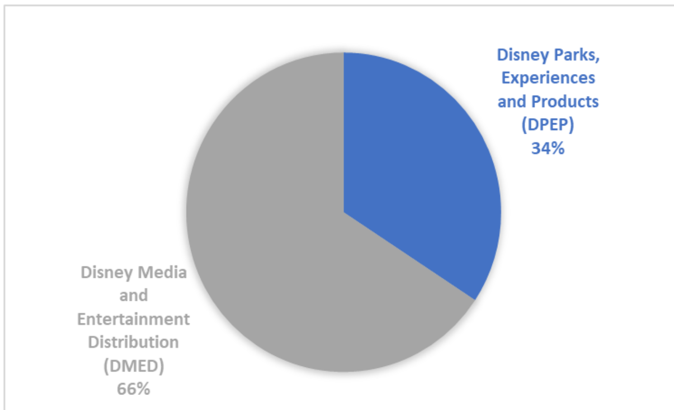
Streaming Services
The rise of streaming services like Netflix, Amazon Prime Video, and Disney+ has disrupted traditional television and film distribution models and allowed consumers to access content on-demand, rather than waiting for a scheduled broadcast or release.

Changing Consumer Behaviour
Consumers' have recently been seeking out more diverse and inclusive content, as well as content that reflects their values and beliefs. This has led to increased pressure on companies to produce or provide content that is representative of different communities and cultures, and to avoid controversial or offensive content.

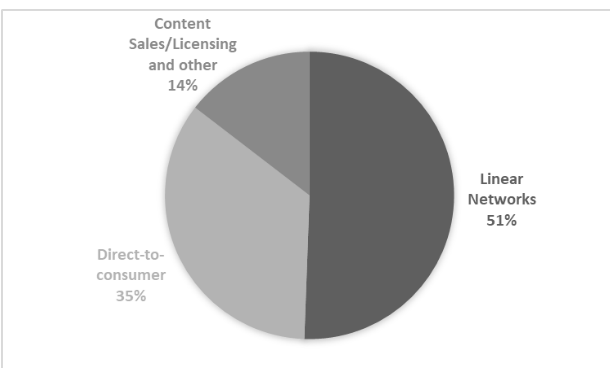
Pandemic
The COVID-19 pandemic devastated the entertainment industry. For public health safety, cinemas, theme parks, and other venues have to be closed temporarily. This instigated companies to shift their focus towards online streaming services and content, leading to increased competition in the streaming market.

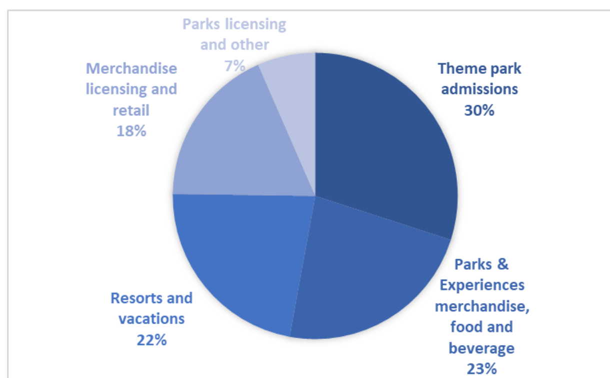
b. Revenue Breakdown

Based on Disney's 2022 annual report, the breakdown of revenue for each business venture is as follows:



Most of Disney's Revenue comes from their DMED sector. Let's Break the DMED and DPEP sectors down further to see what contributes to each segment's revenue:

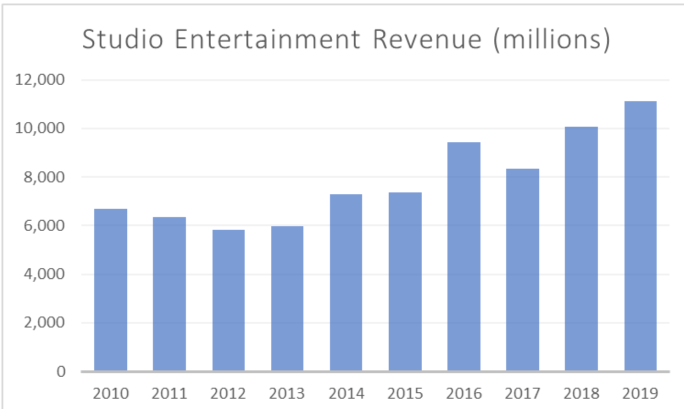




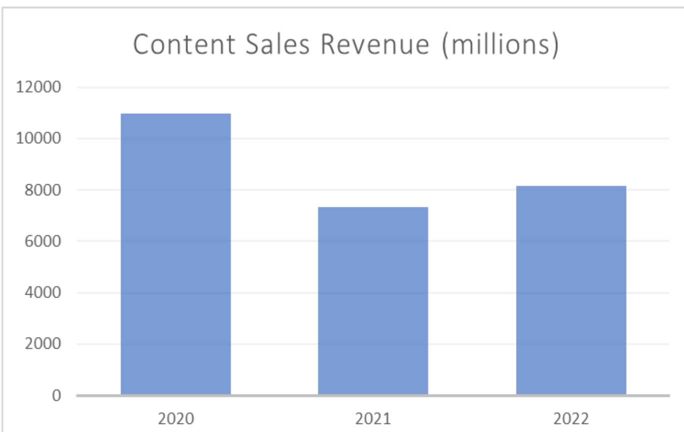
The following section will provide a more in-depth explanation of some of the above segments which are expected to grow in the coming years and contribute significantly to Walt Disney's revenue.

2.Revenue

a. Content Sales/Licensing



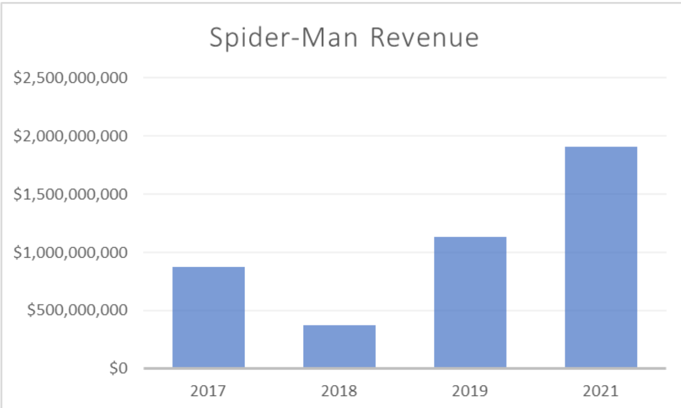
The segments contributing to the bulk of Content Sales/Licensing is TV/SVOD and theatrical distribution. From 2019 to 2019, the revenue for this segment, (originally known as Studio Entertainment) increased from $6701M to $11,127M.



Revenue decreased from $10,977M in 2020 to $8146M in 2022. Delay or cancellation of theatrical releases due to covid negatively impacted theatrical distribution. Customers also displayed a larger preference to streaming services. Thus, Disney started prioritising Direct-to-Consumer(DTC) content instead, which resulted in TV/SVOD distribution revenue to decrease from $5,673M in 2020 to $3,781M in 2022.

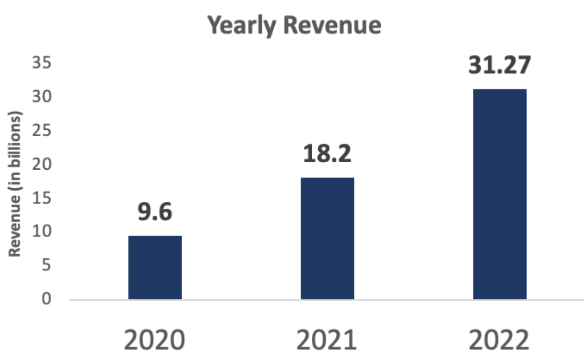
Considering the current increase in segment revenue from $7346M in 2021 to $8146 M in 2022, and assuming events such as covid will not happen again , revenue is expected to increase. From 2020 to 2022, the CEO Bob Chapek shifted decision making related to content from creative departments to Kareem Daniel, ex-chairman of Disney Media and Entertainment Distribution (DMED). Under the current leadership of CEO Bob Iger, decisions related to content will be shifted back to the creative departments. This move is expected to restore the link between creative storytelling and financial performance.

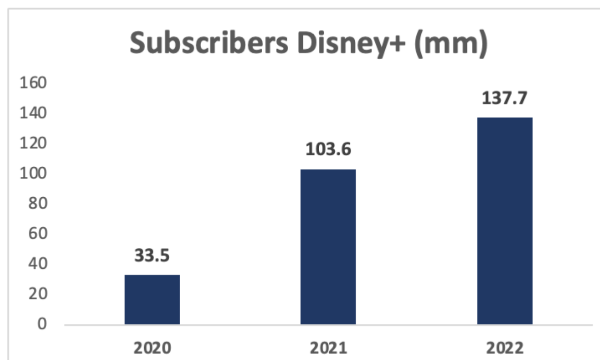
One of Disney's business highlights for DMED is its box office revenue. It generally increased from $5B in 2017 to $11.1B in 2019. The highest-grossing movie franchises and series worldwide as of June 2022 is Marvel Cinematic Universe.



For example, the revenue from Spider-Man has generally increased since 2017. This showcases their strategy of capitalising on past content. The success of this strategy can be seen in Avatar: The Way of Water with close to $2.2B earned at the box office. Walt Disney is also constantly adapting to various industry trends such as the demand for inclusive content. For example, in the remake of Little Mermaid, the lead role of Ariel is played by a black lead, Halle Bailey.

b.Streaming Services



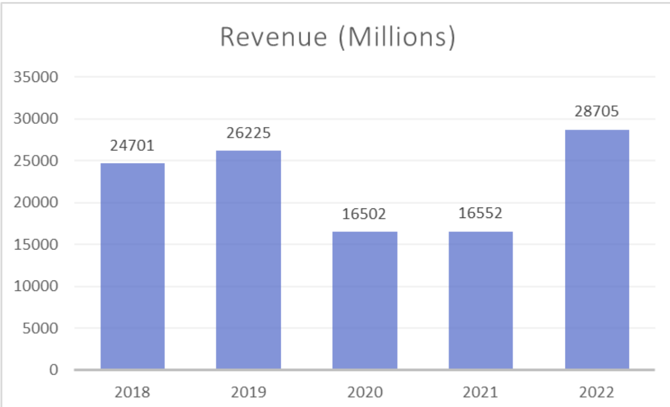


People have become accustomed to staying at home due to COVID-19, leading to the rise in demand for streaming services. This led to the revenue almost doubling every year.

Disney+ in particular saw significant growth, surpassing 100M subscribers in early 2021, well ahead of the company's original goal of 60 to 90M customers by the end of fiscal 2024. Furthermore, Walt Disney has since acquired multiple other streaming services such as Hulu and Fox. During the pandemic, they also acquired Star India which created a huge market in India, contributing to their revenue positively.
They also released the economic bundle encouraging users to upgrade their packages to include more streaming services at a reasonable cost to the consumer, and this has given them a competitive edge in the market. Disney+ is also the only platform to stream all Marvel films and the Star Wars franchise. The drip feed release of the highly anticipated Star Wars series, "The Mandalorian", is just one of the strategies used by Disney to keep consumers engaged for a longer period of time, leading to longer subscriptions thus generating revenue.

Since this is a relatively newer streaming service which launched in 2019, it is only projected to make profits from 2024 Q4, but the increase in revenue is promising and shows that profit can be achieved in 2024.

c. Parks, Experiences & Products (DPEP)



Disney's top 3 segments that generate the most revenue in their DPEP sector are:

- Theme Park Admissions(30%)
- Parks & Experiences Merchandise, Food and Beverage(F&B) (23%)
- Resorts & Vacations (22%)

2018-2019 (Before Covid)

Disney raised Park admission ticket prices($109-$129 to $109-$159) which boosted revenue by 8% despite the 2% drop in consumers. This is due to the fact that Disney's products are price inelastic. With its large popularity, increasing prices will have minimal effect on consumer demand.

Disney has implemented this strategy on their resorts and vacations rates as well which led to an increase in this segment's revenue by 6%.

There was also a 6% increase in guest spending on merchandise and F&B products at theme parks. Disney is quick to produce new attractions,products or experiences following the release of their new films. For example the release of Incredibles 2 in mid 2018 was soon followed up with an Incredibles meet and greet event in Disney's Hollywood Studios by January of 2019. This not only ensures customer retention by adjusting to consumers taste and preferences for the newer items, but also attracts new guests.

2020-2021 (During Covid)

The next 2 years were affected this segment badly due to covid as all the restrictions led to closures of the parks, resorts and vacations for a significant period of time. This resulted in an almost 50% decrease in theme park attendance which led to a 46% decrease in revenue from theme park attendance and a 42% decrease in merchandise and F&B sales and a 37% drop in resorts and vacation attendance led to a 46% decrease in revenue from resorts and vacations.

2022 (Post Pandemic)
During this period, Disney continued to grow beyond its recovery from covid, with revenue outperforming their previous years before covid. With the introduction of the new admission ticket upgrade, known as Genie+(~$15), which gives guests access to the lightning lane allowing them to save time queueing up for rides. There was also an increase in pent-up demand during the covid period since consumers were unable to visit the parks and resorts. These factors, together with the continued increase in ticket prices($109-$159 to $109-$189), boosted park admission revenue by about 14% from 2019.
The increase in pent-up demand as well as Disney's existing strategies as mentioned before also boosted Merchandise and F&B products' revenue by about 9% and Resort and Vacations' revenue by about 2% from 2019.

3.Other Metrics

We will be using different metrics to assess Walt Disney's performance relative to itself and its competitors. This will allow us to make an informed decision as to whether to buy or sell Walt Disney stocks.

Market Capitalization (MCAP)
MCAP is defined as the market value of a company's outstanding shares and is calculated by multiplying the current share price with the number of shares outstanding.[1]

Company	Walt Disney	Comcast	Netflix	Paramount Global	Warner Bros Discovery
Market Capitalization ($USD)	181.9	161.18	154.4	14.2	36.9

Source: Bloomberg

Disney is considered to have a large MCAP and this is preferred by risk averse investors as companies with large MCAP are usually well established and have a good track record of generating profit. Thus, they would be more confident in investing towards large MCAP companies.

Environmental, Social and Governance(ESG)

[1] https://corporatefinanceinstitute.com/resources/valuation/what-is-market-capitalization/

MSCI ESG Rating is used to measure a company's management of risks and opportunities that are financially relevant under the environmental, social or governance factors.[2] Risk score is defined as a number that measures the risk involved with investing in a certain company.[3]

Company	Walt Disney	Comcast	Netflix	Paramount Global	Warner Bros Discovery
MSCI Rating	A	BBB	BB	A	BBB
Risk Score	14.91	23.18	16.43	15.27	17.38

Source: Bloomberg

Disney is identified as having a high average MSCI Rating with having a relatively low Risk Score compared to its competitors. This is indicative of Disney's sustainability as a company and having a lower Risk Score also means that it is less likely to face a financial risk compared to its competitors. As a risk averse investor, he/she would be more willing to invest in the disney stock more so than its competitors.

4. Limitations

There may be some limitations when deciding to buy Walt Disney stocks.

Price to Earnings Ratio (P/E Ratio)

P/E Ratio is defined as the relationship between a company's stock price and earnings per share(EPS)[4]

Company	Walt Disney	Comcast	Netflix	Paramount Global	Warner Bros Discovery
P/E Ratio	38.91	11.87	38.74	10.55	-

Source: Bloomberg

A high P/E ratio indicates that an investor would have to commit more to the company to profit from it. As a risk averse investor, he/she may not be willing to invest so much into a company as the margin to earn from it is too wide.

[2] https://www.msci.com/our-solutions/esg-investing/esg-ratings
[3] https://capital.com/risk-score-definition
[4] https://corporatefinanceinstitute.com/resources/valuation/price-earnings-ratio/

Beta-risk(β)
The beta (β) is a measurement of a company's volatility of returns relative to the entire market[5]

Company	Walt Disney	Comcast	Netflix	Paramount Global	Warner Bros Discovery
Beta	1.13	0.807	1.465	1.335	-

Source: Bloomberg

Walt Disney's beta(β) is greater than 1, which indicates that its returns are more volatile than the market. With higher risk, the expected returns are also larger. However, a risk averse investor would not be willing to take up such high risk when investing in a company. Thus, it is not suggested for them to buy this stock.

5. Future Plans

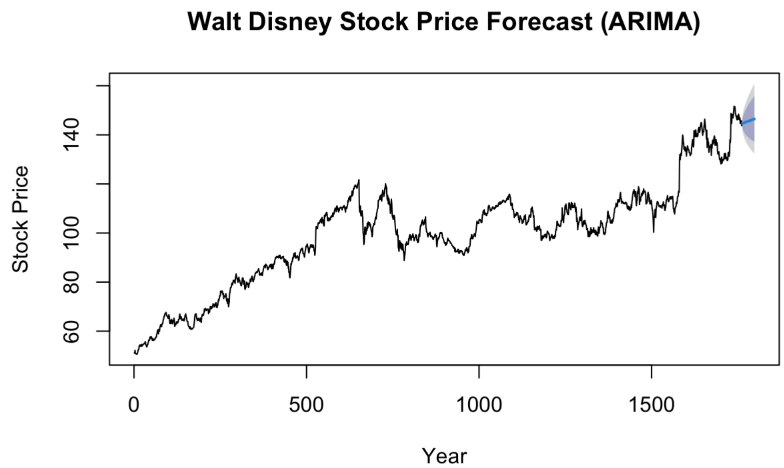
Business Venture	Plans	Where	When
DMED	Live action remake of Little Mermaid	-	25 May 2023
DMED	New Marvel Movies such as Guardians of the Galaxy Vol 3	-	4 May 2023
DMED	1. Expansion of content library in more languages 2. Expansion to more countries in Latin America and Asia	Disney+	Tentatively Summer 2023
DPEP	World of Frozen	Hong Kong Disneyland	Tentatively Late 2023
DPEP	New Disney Cruise Ship	Singapore	2025
DPEP	Zootopia-Themed Land	Shanghai Disney Resort	Tentatively 2023

List is not exhaustive

These are just some of Walt Disney's future plans which display Walt Disney's efforts in capitalising on its past content and catering to consumers' interest. In addition, the expansion of Disney+ will result in a larger target audience.

[5] https://corporatefinanceinstitute.com/resources/valuation/what-is-beta-guide/

6. Revenue/Stock Price Prediction & Final Stand



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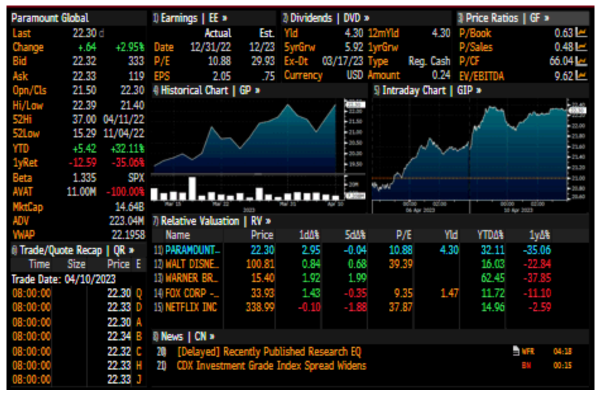
7. Appendix

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Score
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Vs Peers
Environmental 3.79 +1.29 Above Median
Social 2.55 +0.84 Leading
Governance 7.81 -0.07 Leading
Third Party Scores | RV ESG »
MSCI Rating A
Sustainalytics
Risk Score 14.91
Risk Category Low
Controversy Level 2.00
S&P Global ESG Rank 91.00

Source: Bloomberg

```r
# Step 1: Import data
dis_data <- read.csv("DIS.csv") # replace "dis.csv" with the filename of your dataset
dis_xts <- xts(dis_data$Close, order.by = as.Date(dis_data$Date, format = "%Y-%m-%d"))

# Step 2: Feature engineering
dis_features <- cbind(
  dis_xts,
  SMA(dis_xts, n = 10),
  SMA(dis_xts, n = 20),
  RSI(dis_xts)
)
colnames(dis_features) <- c("Close", "MA_10", "MA_20", "RSI")

# Step 3: Data preprocessing
dis_features <- na.omit(dis_features)
dis_features$Close <- NULL

set.seed(123)
trainIndex <- createDataPartition(dis_features$MA_10, p = 0.8, list = FALSE)
train <- dis_features[trainIndex, ]
test <- dis_features[-trainIndex, ]
```

```r
# Step 4: Model selection
model <- train(MA_20 ~ ., data = train, method = "rpart", trControl = trainControl(method = "cv", number = 5))

# Step 5: Model training
rpart_model <- rpart(MA_20 ~ ., data = train, cp = 0.01)
prp(rpart_model) # plot decision tree

# Step 6: Model evaluation
pred <- predict(rpart_model, newdata = test)
MSE <- mean((test$Close - pred)^2)
RMSE <- sqrt(MSE)
MAE <- mean(abs(test$Close - pred))
accuracy <- data.frame(MSE, RMSE, MAE)
print(accuracy)

# Step 7: Prediction
last_date <- tail(dis_features, n = 1)
new_data <- data.frame(
  MA_10 = last(last(dis_features$MA_10)),
  MA_20 = last(last(dis_features$MA_20)),
  RSI = last(last(dis_features$RSI))
)
```
(R Code for Stock Price Prediction)

8. References

https://d23.com/disney-history/#timeline
https://thewaltdisneycompany.com/app/uploads/2023/02/2022-Annual-Report.pdf
https://thewaltdisneycompany.com/app/uploads/2022/01/2021-Annual-Report.pdf
https://thewaltdisneycompany.com/app/uploads/2021/01/2020-Annual-Report.pdf
https://www.msci.com/our-solutions/esg-investing/esg-ratings
https://www.nytimes.com/2020/05/05/business/media/coronavirus-disney-earnings.html
https://nymag.com/intelligencer/2020/05/how-does-the-coronavirus-affect-disney.html
https://www.reuters.com/article/walt-disney-results-idUSKBN27T072
https://www.theguardian.com/film/2020/dec/02/walt-disney-layoffs-workers-struggle
https://edition.cnn.com/2020/03/12/media/disney-world-close-coronavirus/index.html
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https://thepointsguy.com/news/new-disney-world-2022/
https://corporatefinanceinstitute.com/resources/valuation/what-is-market-capitalization/
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