

Project 1: Uncovering Opportunities for Nike's Market Position

Market Overview

Nike, Inc. is an American athletic footwear and apparel corporation headquartered near Beaverton, Oregon, United States. The company is the world's largest supplier of athletic shoes and apparel; it is also a major manufacturer of sports equipment. The company's reported revenue as of 2024 is \$51,581m while its net income was \$5,231m. Its main competitors consist of Berkshire Hathaway Inc, VF Corp, PVH Corp, and Skechers USA Inc. Among these, Berkshire Hathaway possesses the highest revenue number at \$364,482m.

Nike is a company that has mastered its branding. Leaning on their values of innovation, simplicity, and collaboration, they are able to create a strong and lasting impression on consumers, inviting them to be part of the journey. The company achieved their brand mastery through innovation, simplicity, storytelling as a branding strategy and perhaps most importantly collaborative design approach, this design philosophy consists of collaborations with athletes, designers, or artists, resulting in innovative products and campaigns, it is one of the main reasons for Nike's global popularity and mind share among consumers worldwide.

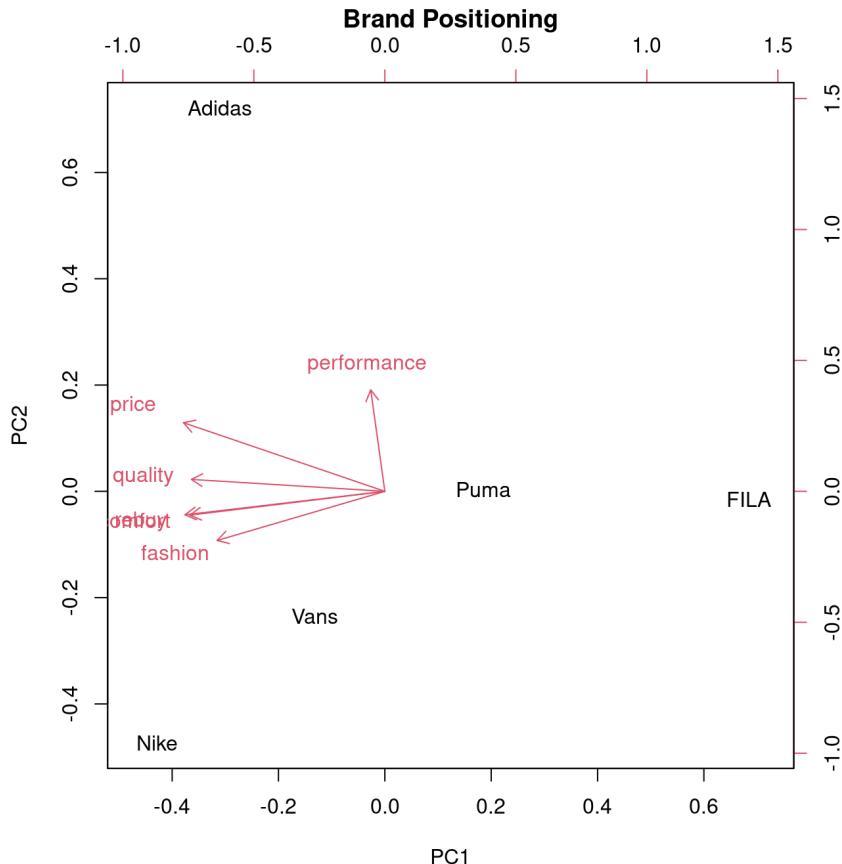
Nike is currently undergoing a change in strategy due to market share trends, more specifically a stagnation of footwear product sales in the US market, the company is focusing on introducing new innovative products, The U.S. footwear market is an area where the company has the most competitive strength, however, due to footwear sales "sluggishness" in the US market the company switched a good amount of its business to short-term ordering as opposed to longer lead time futures orders.

Brand perception in the European market is positive, Nike is viewed as a cool and innovative footwear brand in Europe with a market share of 30%, in North America however the brand is losing market share to competitors such as Adidas and Under Armour, while Nike is considered a strong brand in North America survey data from 2016 indicates a slippage in the Brand's appeal particularly among millennials in that year Nike shares were down 18% while Under Armour share were down 23% and Adidas shares up to 58%.

In the North American social media department Nike dominates the competition in terms of reach and mention volume with 27% more reach in this space than its competitor Adidas, Nike has also been using sponsored posts with athlete and master trainer influencers in their *You Can't Stop Us* campaign, where they give people workout tips and exercises that can be done from home and encouraging them to download the Nike app leading to higher engagement overall.

Data

Perceptual Map



To construct the perceptual maps, we first identified several key factors that influence consumer preferences: performance, price, quality, fashion, comfort, and likelihood of repurchase. Our objective was to visually compare Nike with its principal competitors—Puma, Adidas, Vans, and FILA—to gauge Nike's market standing and consumer perception within the athletic footwear industry.

Interestingly, performance was the one dimension where Nike did not excel; this metric significantly favored Adidas, Nike's chief rival in the sportswear sector, where performance is presumably a critical determinant of consumer choice. This perception could pose a long-term challenge for Nike if consumers persist in viewing their products as subpar in performance.

In terms of price, both Nike and Adidas were favored, with Adidas having a slight edge—possibly due to their superior performance differentiation. Consumers might perceive Adidas products as offering better value for a similar price, thus influencing their purchasing decisions. The quality metric was closely contested between Nike and Adidas, with both brands clearly outperforming FILA and Puma, suggesting that Nike remains a top contender in this area.

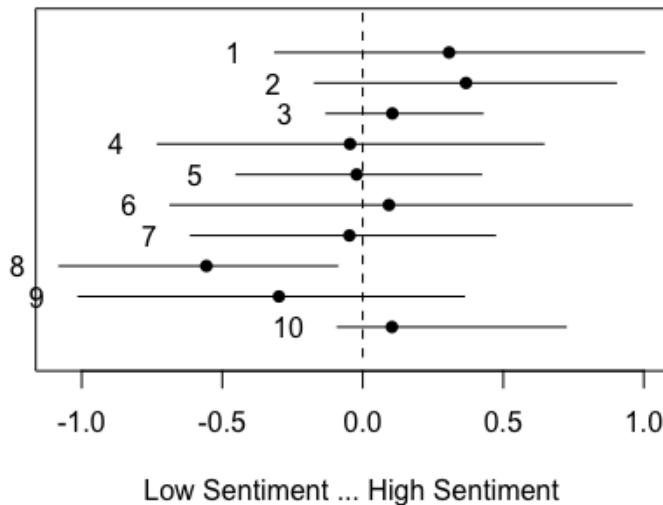
Comfort, likelihood of repurchase, and fashion also saw Nike and Adidas outpacing other brands, with Vans also receiving favorable scores. However, there was a slight preference for Nike and Vans over Adidas in these categories. This presents a nuanced competitive landscape for Nike, particularly against Adidas and Vans. Depending on Nike's strategic priorities, the relative importance of comfort and fashion might vary, especially for consumers prioritizing performance.

Sentiment Scores

Topic modeling was performed to obtain 10 main topics from the focus group transcript. Below is a summary of each topic based on the top keywords which were converted into word clouds that can be viewed in the appendix:

These topics suggest that the participants are particularly attuned to issues like innovation, fashion, sustainability, and the role of digital media in shaping brand perception, etc. The sentiment scores associated with these responses could further help in understanding the intensity and positivity or negativity of these interests, which can be analyzed to quantify how strongly participants feel about these topics

Relationship between Topic and Sentiment Score



The position of each point along the x-axis suggests the degree to which a topic is more prevalent in documents with high or low sentiment scores. For instance, topics closer to the left are more prevalent in documents with low sentiment scores, which could imply a negative perception or critical view associated with these topics. Conversely, topics towards the right, with points closer to a sentiment score of 1.0, are more prevalent in documents with high sentiment scores, signaling a positive perception or endorsement of the themes within these topics.

From the Plot above we can order the topics in the following order:

Highest Sentiment Topic 2, Topic 1, Topic 10, Topic 3, Topic 6

Lowest Sentiment Topic 5, Topic 4, Topic 7, Topic 9, Topic 8

The following were the areas that we determined were the most important based on this analysis(numbered based on the topic they are associated with).

1. Comfort
2. Fashion
6. Style
10. Sustainability

The perceptual maps indicate that Nike holds a strong market position in comfort, fashion, and style. However, it falls short in the area of sustainability. Given the growing importance of sustainability in this market segment, we recommend that Nike focus on enhancing its reputation as a sustainable brand. This strategic shift is essential to align with consumer values and strengthen its market presence.

Recommendation

Growth Strategy:

One aspect Nike can leverage to meet consumer demand in the athleisure market by focusing on sustainability by combining it with fashion and comfort.

1. Sustainability is the new cause many new generation consumers care about. Nike can craft marketing campaigns aimed at this audience that evoke an emotional connection with the environmental impact of fashion choices. Nike can position its athleisure as a positive step towards a greener future.
2. Showcase the stories behind the sustainable materials used. This could involve highlighting the recycling of plastic bags, bottles and other recyclable materials. Nike can also partner with sustainability influencers to create content.
3. Nike can organize events or workshops that combine athleisure activities with sustainability. Partnering with local fitness studios or sports centres for these events.
4. Nike can collaborate with renowned fashion designers and sports influencers to create athleisure footwear lines that blend performance, style, and sustainability. These collaborations can introduce Nike products to new audiences and reinforce the brand's image as a trendsetter not only in athletic and fashion circles but also in the sustainability aspect as well.
5. Nike sponsoring athletes or sports teams known for their environmental activism will increase the brand's positioning in the sustainability aspect.
6. Switch to eco-friendly packaging materials like recycled cardboard or biodegradable alternatives. This reinforces the brand's commitment to sustainability throughout the customer experience.

As consumer preferences in the Athleisure market continue to evolve Nike's ability to adapt and integrate sustainability into its core brand identity will be crucial. By enhancing its sustainability efforts, Nike can ensure its leadership position and respond effectively to the shifting dynamics of the global market. This strategic realignment towards sustainability addresses consumer demand as indicated by the data and analysis in this document. By enhancing its sustainability efforts, Nike can ensure its leadership position and respond effectively to the shifting dynamics of the market.

Appendix

<https://snapshot-factiva-com.proxy.library.nd.edu/Search/SSResults>

<https://www-mergentonline-com.proxy.library.nd.edu/competitors.php?compnumber=16861>

<https://snapshot-factiva-com.proxy.library.nd.edu/Search/SSResults>

<https://scholars.unh.edu/cgi/viewcontent.cgi?article=1529&context=honors>

<nike-the-brand-philosophy-that-made-it-a-success>

Exhibit 1.

Topic 1: Comfort. Focuses on the comfortable aspects of footwear, how they combine with daily attire, and the innovative features they integrate.

comfort

Exhibit 2.

Topic 2: Fashion. Emphasizes the fashionable look and style of sneakers, mentioning Adidas and how these attributes contribute to a narrative.



Exhibit 3.

Topic 3: Innovation. Quality and digital legacy. Concentrates on the perceived quality and digital presence of brands like Adidas, along with the legacy they carry



Exhibit 4.

Topic 4: Technology. Discusses the technological and aesthetic innovation in footwear, with mentions of specific styles like retro and vans.



Exhibit 5.

Topic 5: Brand. Relates to how brands become icons through online platforms, highlighting the role of user feedback and online content.



Exhibit 6.

Topic 6: Style Strategy. Highlights how Nike is bringing new styles and innovation, possibly pointing to their marketing strategies and brand image.



Exhibit 7.

Topic 7: Adaptability. Discusses Adidas's adaptability and innovative moves that could potentially change the game.



Exhibit 10.

Topic 10: sustainability. Touches on the importance of sustainability in innovation, keeping brands fresh and discussing the potential they hold.



Setup

Data Preparation

Examining the contents of the provided focus group transcript file to understand its structure and the data it contains. From there, topic models were developed which reflect the brand perceptions, we further analyzed the sentiment information to find consumer interests.

The focus group transcript data consists of columns for Participant, Response, and sentiment_score. Each row captures a participant's response about brand perceptions and a sentiment score that likely quantifies the positivity or negativity of the sentiment expressed.

To develop topic models from this data, the use of natural language processing techniques to identify themes and topics discussed by the participants were used. Additionally, the sentiment scores can help us gauge the intensity of the participants' opinions towards those topics.

```
## Read in the product focus group data
#focus_group <- read.csv(file.choose()) ## Choose the file focus_group_data_sentiment.csv
focus_group <- read.csv("nike_focus_group_sentiment.csv")

## Process Documents
customwords = c("participant", "moderator", "nike") # Adjust as needed
processed <- textProcessor(focus_group$Response, metadata = focus_group,
customstopwords=customwords)
out <- prepDocuments(processed$documents, processed$vocab, processed$meta)
## Removing 346 of 522 terms (346 of 967 tokens) due to frequency
## Your corpus now has 40 documents, 176 terms and 621 tokens.
docs <- out$documents
vocab <- out$vocab
meta <- out$meta

## Determine Number of Topics
focusFit <- stm(documents = out$documents, vocab = out$vocab, K = 10, seed = 1,
prevalence =~ sentiment_score, data = out$meta, init.type = "Spectral")
# The number of topics the analysis produces can be influenced by the K parameter in the stm() function. If it's set to K = 0, the STM will try to estimate the optimal number of topics. However, if you want a specific number of topics, you can set K to that number.

## See how many topics
num_topics <- focusFit$settings$dim$K
num_topics
## [1] 10
Data preprocessing and topic modeling.
The topic modeling was performed to obtain 10 main topics from the focus group transcript.
Below is a summary of each topic based on the top keywords:
These topics suggest that the participants are particularly attuned to issues like innovation, fashion, sustainability, and the role of digital media in shaping brand perception, etc. The sentiment scores associated with these responses could further help in understanding the intensity and positivity or negativity of these interests, which can be analyzed to quantify how strongly participants feel about these topics.
#Summary of Focus Fit
summary(focusFit)
## A topic model with 10 topics, 40 documents and a 176 word dictionary.
## Topic 1 Top Words:
##      Highest Prob: comfort, innov, shoe, combin, everi, that, bit
##      FREX: comfort, combin, shoe, innov, dont, outfit, that
##      Lift: comfort, right, dont, statement, someth, craft, edg
```

```
## Score: comfort, right, redefin, edg, someth, statement, craft
## Topic 2 Top Words:
## Highest Prob: fashion, look, style, good, adida, sneaker, narrat
## FREX: fashion, look, good, style, adida, narrat, sneaker
## Lift: fashion, good, look, whenev, emphasi, give, street
## Score: fashion, good, look, adida, whenev, emphasi, sneaker
## Topic 3 Top Words:
## Highest Prob: innov, like, qualiti, adida, brand, digit, legaci
## FREX: qualiti, legaci, digit, adida, charm, come, feel
## Lift: charm, come, feel, legaci, usual, qualiti, stand
## Score: legaci, qualiti, usual, feel, stand, digit, adida
## Topic 4 Top Words:
## Highest Prob: tech, aesthet, innov, ive, shoe, especi, that
## FREX: tech, aesthet, especi, big, shoe, retro, van
## Lift: big, retro, tech, integr, appeal, done, talk
## Score: big, tech, integr, appeal, especi, van, might
## Topic 5 Top Words:
## Highest Prob: just, brand, icon, platform, insight, athleisur, like
## FREX: just, platform, icon, now, content, feedback, onlin
## Lift: content, feedback, onlin, product, review, style-off, platform
## Score: content, platform, feedback, review, product, onlin, just
## Topic 6 Top Words:
## Highest Prob: nike, bring, style, innov, base, imagin, ive
## FREX: base, bring, nike, imagin, merg, break, can
## Lift: base, break, can, color, eco-consci, say, bring
## Score: break, nike, bring, base, imagin, say, eco-consci
## Topic 7 Top Words:
## Highest Prob: innov, adida, ive, adapt, will, make, game
## FREX: adapt, will, adida, game, innov, ive, make
## Lift: adapt, will, cultur, edg, give, interest, realm
## Score: adapt, will, cultur, realm, edg, interest, integr
## Topic 8 Top Words:
## Highest Prob: style, instagram, tiktok, vibe, like, gen, streetwear
## FREX: gen, instagram, style, vibe, streetwear, millenni, partner
## Lift: millenni, gen, streetwear, redefin, time, partner, follow
## Score: millenni, gen, streetwear, partner, style, instagram, redefin
## Topic 9 Top Words:
## Highest Prob: like, athleisur, brand, shoe, imagin, turn, idea
## FREX: turn, imagin, athleisur, idea, shoe, like, sneaker
## Lift: turn, idea, materi, street, thing, market, everyon
## Score: turn, idea, imagin, cultur, plus, sneaker, line
## Topic 10 Top Words:
## Highest Prob: innov, sustain, brand, fresh, potenti, cool, discuss
## FREX: sustain, cool, discuss, fresh, potenti, still, innov
```

```

## Lift: cool, discuss, still, sustain, potenti, athlet, toward
## Score: cool, sustain, discuss, fresh, potenti, toward, right
## See which topics relate to high vs. low sentiment scores
out$meta$rating <- as.factor(out$meta$sentiment_score)
prep <- estimateEffect(1:num_topics ~ rating, focusFit, meta=out$meta, uncertainty="Global")
plot(prep, covariate="rating", topics=c(1:num_topics), model=focusFit,
     method="difference", cov.value1=max(out$meta$sentiment_score),
     cov.value2=min(out$meta$sentiment_score),
     xlab="Low Sentiment ... High Sentiment", main="Relationship between Topic and Sentiment
Score",
     labeltype="custom", custom.labels=c(1:num_topics))

```

Plot Explanation:

- Dots: Represent topics. Position indicates if a topic is more common in high or low sentiment scores.

* Right of center: Words that are more common in high sentiment responses.

* Left of center: Words that are more common in low sentiment responses.

- Lines: Indicate uncertainty around the dot's position.

* If a line crosses center: Uncertainty about the topic's prevalence in high or low sentiment.

* If a line doesn't cross center: Confidence in the topic's prevalence direction.

From the above plot we can order the topics in the following order:

Highest Sentiment Topic 2, Topic 1, Topic 10, Topic 3, Topic 6

Lowest Sentiment Topic 5, Topic 4, Topic 7, Topic 9, Topic 8

The position of each point along the x-axis suggests the degree to which a topic is more prevalent in documents with high or low sentiment scores. For instance, topics closer to the left are more prevalent in documents with low sentiment scores, which could imply a negative perception or critical view associated with these topics. Conversely, topics towards the right, with points closer to a sentiment score of 1.0, are more prevalent in documents with high sentiment scores, signaling a positive perception or endorsement of the themes within these topics.

Visualize Topics

Adjust topic numbers as required. This is just a placeholder.

The actual topic numbers depend on the results of the STM model.

Highest sentiment topics (based on your interpretation or exploration)

Replace the X with the Topic Number based on the "Relationships between Topic and Sentiment Score" visual.

cloud(focusFit, topic=2)

Topic 2: Fashion. Emphasizes the fashionable look and style of sneakers, mentioning Adidas and how these attributes contribute to a narrative.

cloud(focusFit, topic=1)

Topic 1: Comfort. Focuses on the comfortable aspects of footwear, how they combine with daily attire, and the innovative features they integrate.

cloud(focusFit, topic=10)

Topic 10: sustainability. Touches on the importance of sustainability in innovation, keeping brands fresh and discussing the potential they hold.

cloud(focusFit, topic=3)

Topic 3: Innovation. Quality and digital legacy. Concentrates on the perceived quality and digital presence of brands like Adidas, along with the legacy they carry.

cloud(focusFit, topic=6)

Topic 6: Style Strategy. Highlights how Nike is bringing new styles and innovation, possibly pointing to their marketing strategies and brand image.

Lowest sentiment topics (based on your interpretation or exploration)

Replace the X with the Topic Number based on the "Relationships between Topic and Sentiment Score" visual.

cloud(focusFit, topic=5)

Topic 5: Brand. Relates to how brands become icons through online platforms, highlighting the role of user feedback and online content.

cloud(focusFit, topic=4)

Topic 4: Technology. Discusses the technological and aesthetic innovation in footwear, with mentions of specific styles like retro and vans.

cloud(focusFit, topic=7)

Topic 7: Adaptability. Discusses Adidas's adaptability and innovative moves that could potentially change the game.

```
cloud(focusFit, topic=9)
## Warning in wordcloud::wordcloud(words = vocab, freq = vec, max.words =
## max.words, : athleisure could not be fit on page. It will not be plotted.
```

Topic 9: athleisure and imagination. Talks about turning imaginative ideas into real products within the athleisure space, highlighting the transformation of concepts into tangible items.

```
cloud(focusFit, topic=8)
```

Topic 8: Vibe. Social Media Trends. Discusses Adidas's adaptability and innovative moves that could potentially change the game.

```
# Creating a custom text transformation function without stemming
noStemTransform <- content_transformer(function(x) {
  removeWords(tolower(x), stopwords("en"))
})

# Using the tm package's Document-Term Matrix on Responses without stemming
dtmNoStem <- DocumentTermMatrix(Corpus(VectorSource(focus_group$Response)),
control=list(tolower=TRUE, removePunctuation=TRUE, stopwords=stopwords("en"),
content_transformer=noStemTransform))
## Warning in TermDocumentMatrix.SimpleCorpus(x, control): custom functions are
## ignored
# Getting term frequency from Responses without stemming
term_frequency_noStem <- colSums(as.matrix(dtmNoStem))

# Sorting terms by frequency
term_frequency_noStem <- sort(term_frequency_noStem, decreasing=TRUE)

# Creating word cloud from Responses without stemming
wordcloud(names(term_frequency_noStem), term_frequency_noStem, min.freq=3,
max.words=100, random.order=FALSE, colors=brewer.pal(8, "Dark2"))
```