

CASE STUDIES: DATA SCIENCE IN PRACTICE **"STRATEGYWISE** IS A WORLD CLASS ORGANIZATION, SOLVING REAL LIFE PROBLEMS, WHILE ATTRACTING THE BEST AND BRIGHTEST. IN OTHER WORDS, THE **PERFECT STARTUP**"

- VP, SOFTWARE DEVELOPMENT FIRM

# ABOUT US

**StrategyWise** is a global provider of data analytics and business intelligence solutions. We help clients create value by capturing, analyzing, and applying data insights to drive policy formation, business process improvement and game-changing innovations.

We help companies, foundations, and government entities from every vertical and sector use data science to address critical business objectives. Whether you need us to provide a bird's eye view of your industry's competitive environment or comb through your company's marketing and business practices, we leave no stone unturned when determining the best strategy to positively impact your bottom line.

## KEY QUESTIONS DATA SCIENCE CAN HELP YOU ANSWER

- 1 How can data science help us increase revenues?
- 2 How can we better target and communicate with our customers?
- 3 How can our foundation maximize the impact of grants with quantifiable metrics?
- 4 How can we optimize our staffing model?
- 5 How can we equip our public relations team to respond to or avoid a crisis?



# "INFORMATION IS THE OIL OF THE 21ST CENTURY, AND ANALYTICS IS THE COMBUSTION ENGINE."

- PETER SONDERGAARD



# 1. HOW CAN WE UTILIZE OUR CUSTOMER SUPPORT CENTER TO INCREASE REVENUES?

### **Case Study:**

LEADING NATIONAL UTILITY COMPANY

SOLUTION

## INCREASE PRODUCT AND SERVICE SALES THROUGH CUSTOMER SUPPORT CENTER

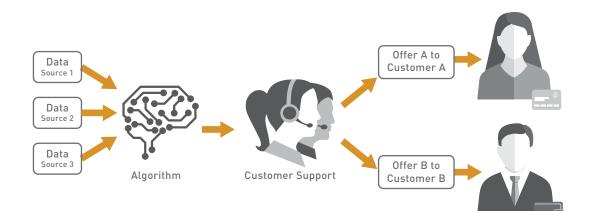
- Take advantage of user interactions by identifying a "next best offer" a product or service that the customer would be highly likely to consider on impulse before the end of the call
- Predict which product the customer is most likely to purchase and tailor offering

## BUILD CUSTOMER SEGMENTATION AND PROPENSITY-TO-PURCHASE ALGORITHMS

- Deploy a cloud-based API service that synthesizes internal customer data with 3rd party data to create propensity-to-purchase scores
- Account for organizational policies and priorities, while also maximizing sales



ALGORITHM GENERATED 15% LIFT IN EARLY PILOT TRIALS MODELS WERE DEPLOYED SYSTEM-WIDE IN Q3 OF 2018



"IT HAS BEEN SAID THAT DATA WILL TALK IF YOU'RE WILLING TO LISTEN, AND STRATEGYWISE IS A MASTER AT HEARING WHAT THE DATA HAS TO SAY."

- WILLIAM CANARY, US CHAMBER OF COMMERCE

# 2. HOW CAN WE IMPROVE OUR RESTAURANT DRIVE-THRU EXPERIENCE?

### Case Study:

NATIONAL FAST FOOD RETAILER

### OPTIMIZE FAST FOOD DRIVE-THRU EXPERIENCE

- Reduce drive-thru wait times
- Reduce failed entrances (customers driving by and avoiding crowded drive-thru lines)

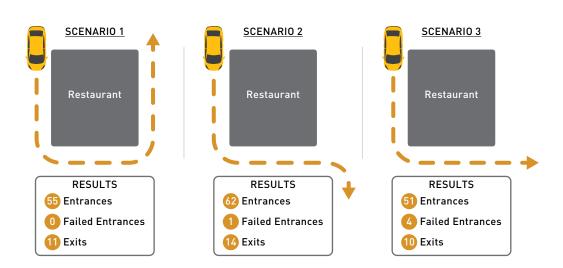
#### DEVELOP SIMULATED DRIVE-THRU TESTING MODEL

- StrategyWise developed a computer simulation to gauge how drive-thru designs and customer service strategies optimize wait times. The solutions could then be tested in real, physical simulations.
- Data scientists at StrategyWise used Python-code and predictive models to build simulations of the drive-thru process, start to finish, producing animations that provided deeper insights in customer flow for the client team.
- Simulations clearly demonstrated what does and does not work and where drive-thru bottlenecks occur. One solution proved particularly effective in reducing wait times and "bounces" (customers choosing not to enter a busy drive-thru line).

CHALLENGE

SOLUTION

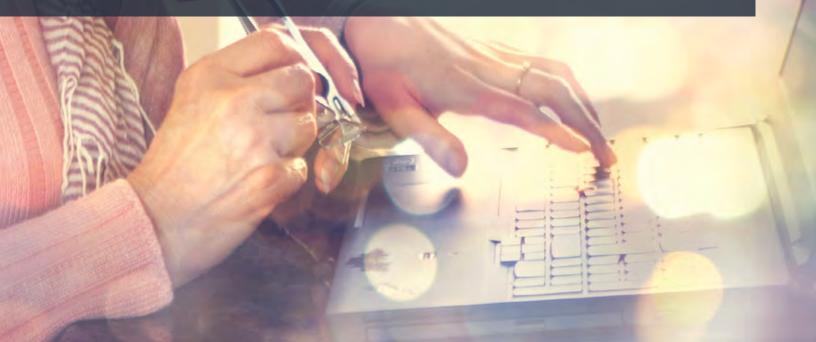
#### STRATEGYWISE FOUND OPTIMIZATION OPPORTUNITIES THAT PRODUCE UP TO A 19% INCREASE IN THROUGHPUT. THESE MODELS ARE NOW ALSO BEING USED IN NEW STORE DESIGN.





"STRATEGYWISE IS LITERALLY BRINGING SOME OF THE WORLD'S BEST AND BRIGHTEST MINDS IN DATA AND ANALYTICS TO BIRMINGHAM. I BELIEVE THE LEGACY OF THEIR WORK MAY VERY WELL BE THE *INTELLECTUAL RESHAPING* OF OUR CITY."

- CMO, LEADING NATIONAL URGENT CARE NETWORK



## 3. HOW CAN WE CREATE QUANTIFIABLE METRICS TO MAXIMIZE THE IMPACT OF OUR GRANTS?

## **Case Study:**

\$125M+ CHARITABLE FOUNDATION



SOLUTION

## ESTIMATE THE TRUE IMPACT OF FUNDED PROJECTS IN THE LOCAL COMMUNITY

- Develop a data-driven funding strategy that emphasizes the actual impact of donations in the local community based on quantifiable results
- Identify success and opportunity metrics for charities

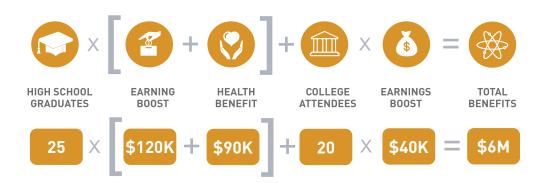
## DEVELOP IMPACT-TO-COMMUNITY AND POTENTIAL-FOR-SUCCESS MODELS AND SCORES

- Design a scoring system for each potential grant recipient to estimate the monetary impact on the community based on data collected through a series of clearly defined grant application questions
- Design a "probability of success" scoring system based on historical success rates, project leadership capabilities, and dozens of additional drivers
- Combine these scores for overall success forecast model



### INCREASED DATA COLLECTION BY 30X TO USE IN FUTURE ANALYSIS INCREASED VISIBILITY INTO APPLICANT SUCCESS DRIVERS TO BUILD AN OPTIMIZED RECOMMENDATION ENGINE

**PROVIDED A DATA-DRIVEN SYSTEM FOR GRANT STAFF TO DETERMINE** OPTIMAL APPLICATIONS TO FUND



**"STRATEGYWISE IS THE** SMARTEST COMPANY WITH THE SMARTEST PEOPLE IN A REALLY SMART INDUSTRY."

- COO, NATIONAL HEALTH INSURANCE COMPANY

## 4. HOW CAN WE OPTIMIZE OUR STAFFING MODEL?

### **Case Study:**

PUBLIC ZOO

### PREDICT DAILY CUSTOMER VOLUMES

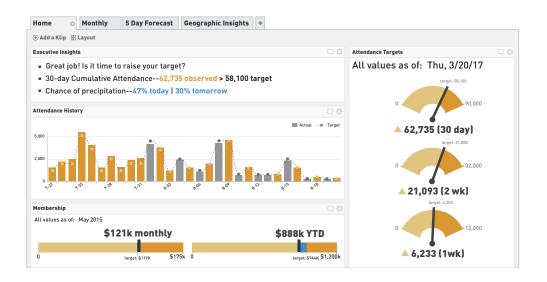
- Optimize staffing based on expected patron activity
- Optimize marketing efforts to maximize revenue while minimizing spend

### DEVELOP PATRON TRAFFIC PREDICTION MODEL

- Design a scoring system for each potential grant recipient to estimate the monetary impact on the community based on data collected through a series of clearly defined grant application questions
- Design a "probability of success" scoring system based on historical success rates, project leadership capabilities, and dozens of additional drivers
- Combine these scores for overall success forecast model

### CREATED LEADERSHIP DASHBOARD WITH DAILY INDICATORS OF ATTENDANCE FORECAST VS. TARGET

DASHBOARD NOW ALLOWS EXECUTIVE TEAM TO BETTER PLAN MARKETING AND STAFFING EFFORTS







"THE WAY STRATEGYWISE USES ADVANCED TECHNOLOGY TO PROVIDE PRECISE INSIGHTS INTO OUR MARKETING AND SALES PIPELINE IS TRULY GAMECHANGING.

- VP SALES, HEALTHCARE IMAGING DISTRIBUTOR



# 5. HOW CAN WE EQUIP OUR PUBLIC RELATIONS TEAM TO RESPOND TO OR AVOID A CRISIS?

### Case Study:

**CHALLENGE** 

SOLUTION

RESULT

FORTUNE 500 COMPANY

### ANTICIPATE PUBLIC RESPONSE WITH ADEQUATE TIME TO REACT

- Predict potential PR crises before they reach their breaking point
- Develop a proactive PR strategy to mitigate effects of negative PR

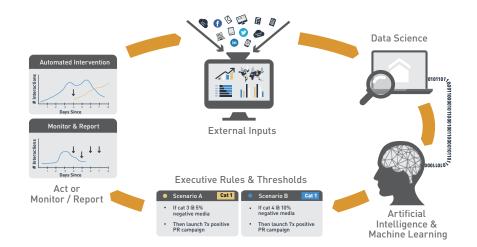
### DEVELOP PUBLIC RELATIONS RESPONSE FORECAST MODEL

- Analyze a series of historical PR events to identify a baseline for crises
- Develop a predictive model based on the volume and medium of digital conversations surrounding events
- Create a social listening tool that anticipates reactions to events related to key words and phrases

### MONITORED POTENTIAL NEGATIVE PR EVENT

LAUNCHED A POSITIVE PR CAMPAIGN WHEN EVENT REACHED POTENTIAL THREAT LEVEL

AVOIDED POTENTIAL PR CRISIS BY MITIGATING NEGATIVE PR





# A SELECTION OF DATA SCIENCE SERVICES WE OFFER

- DATA SCIENCE STRATEGY ROADMAPS
- DATA GOVERNANCE STRATEGY, TEAM DEVELOPMENT AND COACHING
- PREDICTIVE MODELING
- AI, MACHINE AND DEEP LEARNING
- DASHBOARDS AND VISUALIZATION TOOLS
- ANALYTICS TEAM STAFF AUGMENTATION





"THE DATA SCIENTIST WAS CALLED, ONLY HALF-JOKINGLY, 'A CAPED SUPERHERO." — BEN ROONEY, WALL STREET JOURNAL



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