Case Studies of Applications of Analytics from industries

- Non technical presentation
- Background Scenario
- What was done and
- How did it help?

Welcome

- Thanks for joining this course!
- Generate interest on analytics
- Understand Analytics is for win-win
- Understand wide applicability of Analytics
- Take it as sample only

HEALTH INDUSTRY

Healthways

- Business health insurance
- works with insurer on health care insurance business
- What is the biggest risk for the company?
- How can the claim be reduced?
- Artificial intelligence to study member's
 - ✓ demographic,
 - ✓ claims,
 - ✓ prescription,
 - ✓ lab procedure to predict risk
- ➤ 1500+ trained nurse to call/ mail members to develop healthy behaviors helping

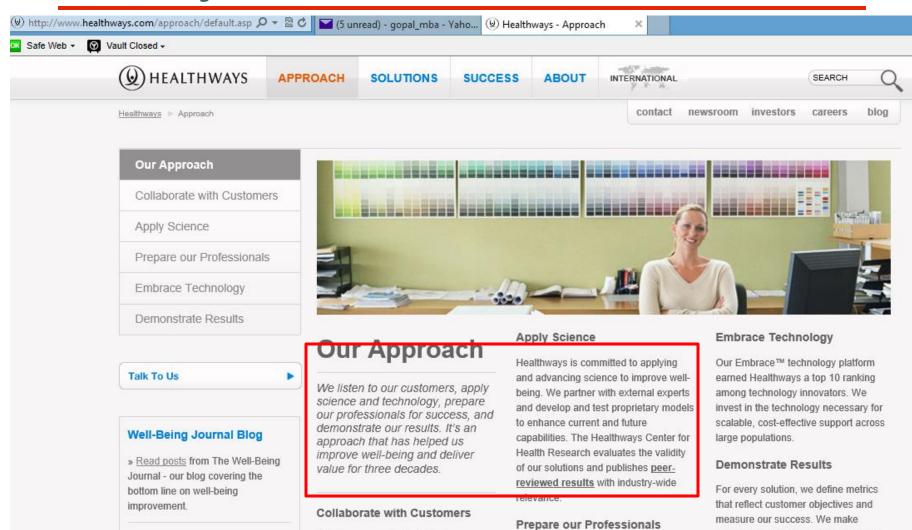
members and company





Healthways

Healthwave Wehinare



Win Win – win for customer and win for the firm

adjustments where needed to elevate

What are your priorities? Reduce

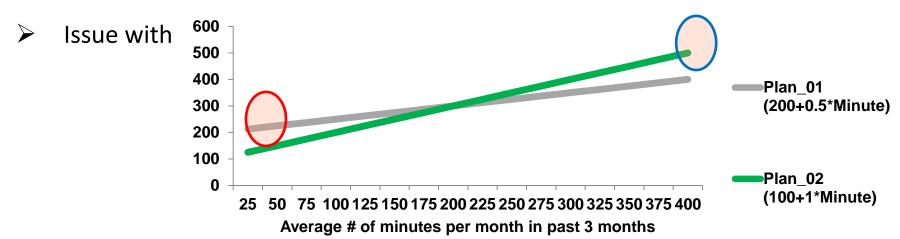
Health services can be improved

- Information about
 - local event &
 - weather anomaly and
 - past information about their impact can help greatly
- Inform people about what can they do to safe guard themselves
- Big healthcare expense can be saved as well as people can get better life

TELECOM INDUSTRY

Save expense of customer – reduce churn

Rates: fixed rental + per minute charges * # of minutes



- > Ask selected few in red circle to shift to correct rate plan
- Suggest account holder in blue circle to shift to corporate / business plan

Grow business

- Search phone numbers of other networks making too many incoming calls in your network
- Ask sales agent to call and suggest those phone numbers that if they were on same network they would have saved a lot
- Inform customer about the savings amount

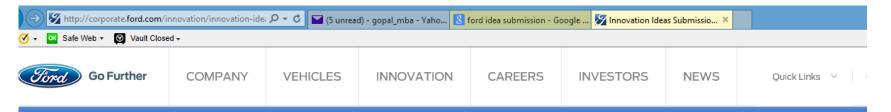
02 mobile network - UK

- ➤ Mobile internet : challenge because of smaller screen
- What should be presented on this, a challenge?
- O2 came with
 - ✓ First check preference of customer
 - ✓ Initial set of content based on chosen preference
 - ✓ Propriety algorithm to understand customer's changing preference or
 - ✓ Customer interest on a particular news topic
 - ✓ How many people would have preferred computer to predict their preference?
 - √ 97% of the users liked O2 to provide content based on intelligence.
- ➤ 50% of UK's total mobile internet usage on O2 mobile network

AUTOMOBILE INDUSTRY

Ford Figo success story

- Earlier philosophy: produce first and then put effort to sell it
- > Evolved philosophy: let's develop what is the need
- Ford websites played a big role



Ford New Ideas/Consumer Innovation Office

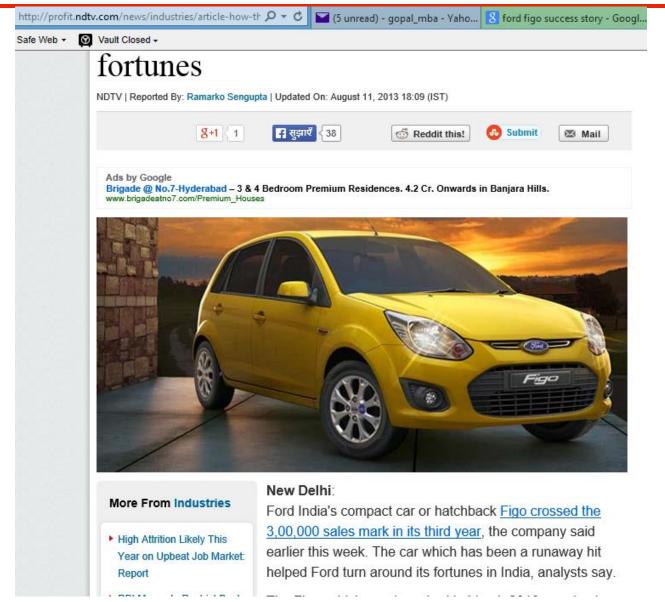
Ford receives thousands of ideas each year. In order to review these, we have a strict process that balances your interests and rights with those of Ford Motor Company. In return for your acceptance of the Idea Submission Rules and Terms & Conditions, Ford Motor Company offers a non-confidential, preliminary evaluation of your submission.

Is this the right place for your idea?

Ford Figo success story

- Helped ford to know customer need
- Design based on market need
- Production schedule as per customer need
- Inventory of needed product
- Figo spectacular success because of need based design
 - Size
 - Price
 - Comfort

Ford Figo success story



TRANSPORT INDUSTRY

Uber

- Let people see where is the cab
- How much time it should take
- Expected fair
- Security options for customer and the car
- Pay from wallet
- Diver feedback









Uber

- Offers to get more customers
 - something for sender and
 - > receiver
- What more they can do? OLA Café





> Signature analysis to forecast car issue for proactive maintenance

ELECTRONICS INDUSTRY

Bestbuy: electronics industry

- Logical and manageable segment identification
 - ✓ Short on time mother
 - ✓ Happy go lucky youngster etc.



- Store within store concept as per customer need with subtle arrangement as per need
 - ✓ Mild music in home theater for short on time mother
- Specially trained resource per segment
- Specialized offers for subsequent sales like limited period e-coupon for photo printer after purchase of digital camera
- Net result : sales were double in those stores in comparison of general stores

Best buy success secret



Best Buy bets big on store-within-store concepts

Article by: THOMAS LEE, Star Tribune | Updated: July 14, 2013 - 6:57 AM

8 best buy store within a store - ...

The electronics giant is remaking the way it sells to customers, but will the changes drive sales?

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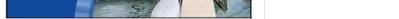
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🬟 Best Buy bets big on store-... 🗶









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The sign outside the big box in Richfield says Best Buy, but the inside of the building looks more like a mall than a single store.

The usual Blue Shirts and Geek Squad agents scurry across the sales floor, but Samsung, Microsoft, Pacific Kitchen and Magnolia occupy their own domains within Best Buy. They have large product displays, dedicated checkout areas, and employees wearing shirts that are distinctively not blue.

Best Buy stores are becoming more complex these days as CEO Hubert Joly has aggressively pursued a "store-within-a-store" concept more common among department stores and Asian retailers.

"Best Buy is really hustling to find its strategic way forward," said Robin Lewis, CEO of the Robin Report, a newsletter that tracks the retail industry.

related content



MINNESOTA TOPICS: Best Buy

Find the latest news and information about Best Buy.

ENTERTAINMENT INDUSTRY

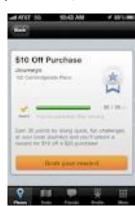
Harrah International: entertainment industry

- Casino business: Caesars Entertainment
- Customer retention effort
 - ✓ Customer is losing too much
 - ✓ Alert : May be you have a bad day why don't you take a break
 - ✓ If gamer continues to loose: time for break, enjoy food (for breather)
 - √ \$10 free for next hour in café



- ✓ Free game on lesser traffic machine
- ✓ Alert on mobile for similar machine : slot available on machine # ...
- Improve customer experience
- Redirect / out demand traffic





Netflix: entertainment industry

- CD supply business
- Cine match : based on
 - ✓ Customer choice
 - ✓ Availability
 - ✓ Tagging of movies on attributes
- Long tail impact: outgrow demand up to some extent
- Knows how many viewers will be before paying price: Favela Rising
 - ✓ documentary about : musicians at Rio De Janeiro slums –
 - ✓ Aims at using music and education to better the lives of youth and prevent further growth of gangs
 - ✓ City of gold brazil 1 Million, born into brothel-India- .5 Million, common 0.25 Million
- Knows how much is the worth of a particular title before purchase of rights
 - Serves it most profitable customer in best possible way





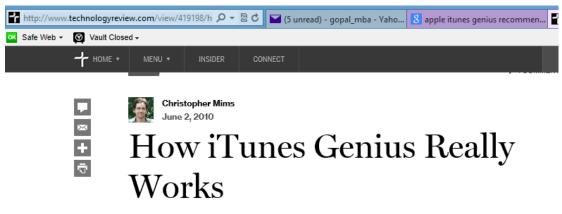


For recommendation engine

- How to show the trailer clip?
- What is the best write up for the movie?

Apple i-tunes genius

- Guess the song to know more
- Repository of tunes
- Pattern based recommendation engine



An Apple engineer discloses how the company's premier recommendation engine parses millions of iTunes libraries.

Ever since the feature debuted in 2008, there's been a lot of <u>speculation</u> about how iTunes Genius accomplishes its playlist-building magic. Now an engineer at Apple that works on the iTune Genius team has revealed some <u>tantalizing clues</u>—a rare disclosure for the infamously secretive company.

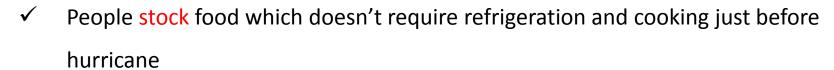
Recapitulating what Steve Jobs has said previously about iTunes Genius, Apple engineer Erik Goldman writes in his <u>post on Quora</u> that the starting point for the Genius service is a packet o usage data—what songs a user has in his or her library (and, presumably, how often he or she plays them)—sent from the iTunes application which is "folded into a larger database of users and songs."

Basically, your library of tracks is compared to all the other Genius users' libraries of tracks. Apple then runs a set of previously secret algorithms, which Goldman described as

RETAIL INDUSTRY

Wal-Mart: retail chain

- Great integration of whole supply chain
- Coordinated production, supply, sell etc.
- Relentlessly pursue improved operational efficiencies
- Develop deep knowledge of its customers
- Greater insights about customer need for an event:



Insures sufficient supply of these before such events due to integrated SCM



Wal-Mart: retail chain



CASE STUDY - WALMART: SCRIPTING SUCCESS THROUGH CUSTOMER ANALYTICS



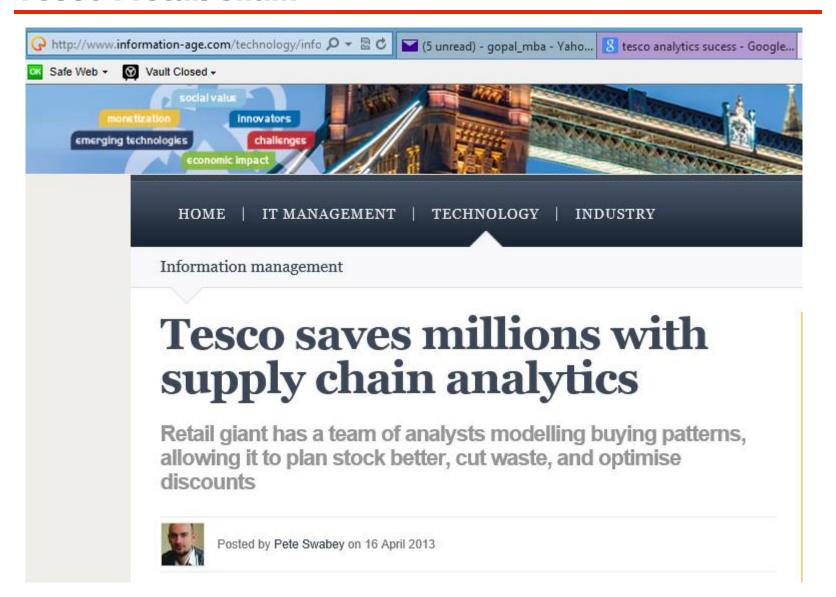
08/2013;

ABSTRACT Retail chain Walmart, ranked no. 1 in the Fortune 500 list of largest US companies, had sales of \$466 billion in fiscal year 2013. Walmart's supply chain operational competitiveness was legendary. The company operated more than 4,000 stores in the US as of January 2013. Walmart had more customer connections than any other retailer in the world. Walmart had strong presence in social and digital media as well. More than 300,000 people accessed Walmart through social media, per week, in 2012. Most of the customer data were being collected from in-store and online transactions and also from social media conversations. Walmart had effectively used customer analytics to improve operational performance. Customer analytics enabled to know about consumer preferences from social media to gain competitive advantage. Walmart used customer analytics to increase customer base by spending on marketing and promotional activities. Walmart's prime challenges in the online media were from Amazon (world's largest online retailer) to attract customers in the online segment. Hence Walmart had to improve upon its customer analytics advantages and stay ahead in the retail segment overcoming the challenges posed by Amazon in the eCommerce space. Amidst this background, it remained to be seen whether Walmart would succeed in establishing a stronger foothold in the retail market using customer analytics in the long run. [less]

Tesco: retail chain

- Started club card in 1995, which is necessary to capture purchase behavior
- Optimal segmentation
- Groups customer based on their behavior
 - ✓ Value conscious customer buys what is on sale, uses coupons sent in the mail
 - ✓ Convenience seeker 3 / 4 purchases per week all for prepared food, rarely changes his purchase regardless of promotion,
- Who should be targeted?
- Targeted and timed next offer
- Measure the impact of promotion
- Weather impact on purchase behavior
- \rightarrow Hot weather \rightarrow barbecue meat,
- \rightarrow Cold weather \rightarrow cat litter (cats are less likely to leave the house in the winter)
- Not simply stocking also contextual

Tesco: retail chain



Tesco: retail chain

The supply chain analytics team took all the data Tesco had about its historical promotions, and built a detailed predictive model. This pulled in all manner of variables, including the positioning of a discounted product in a store and what other offers were operating at the same time.

That has revealed some interesting insights. For example, a "buy one, get one free" offer works better than a 50% discount for non-perishable goods, such as a cooking sauces, but the reverse is true for fruit and vegetables.

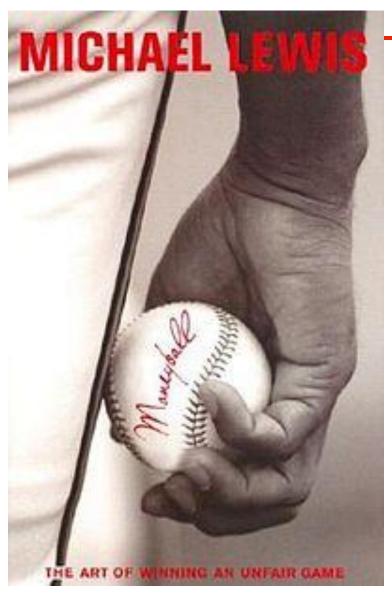
To push these insights out into the stores, the supply chain analytics team built a web-based workflow system that allow stock controllers to access a sales uplift forecast for their specific store, and use it to plan their orders.

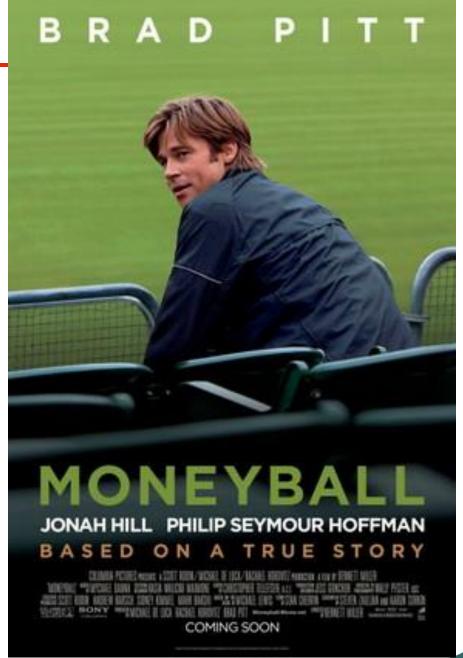
This system, Apthorp says, has allowed Tesco to take £50 million-worth of stock out of its depots.

All of this was possible, he explains, because Tesco sorted out its data infrastructure 15 years ago, when it implemented a Teradata enterprise data warehouse alongside its IBM mainframe.

As it happens, though, the supply chain analytics team recently bought its own Teradata data warehouse, which replicates the primary data set, which Apthorp says has increase the frequency and complexity of the analyses it can do.

SPORTS INDUSTRY





Moneyball: HR analytics

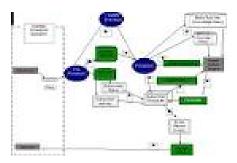
- Moneyball: The Art of Winning an Unfair Game: By Michael Lewis (2003)
- ➤ About the Oakland Athletics baseball team and its general manager Billy Beane.
- Its focus is the team's analytical, evidence-based, sabermetric approach to assembling a competitive baseball team, despite Oakland's disadvantaged revenue situation.
- A film based on the book starring Brad Pitt was released in 2011.
- > Any player brings
 - ✓ speed,
 - ✓ strength,
 - ✓ attitude and character. Mental toughness (possibility of winning even when u
 lost in first half)
- Amendment: reassessing players every year to ensure one gets what he deserves
- > Great players left out due to team fitment issues

CEMENT SUPPLY BUSINESS

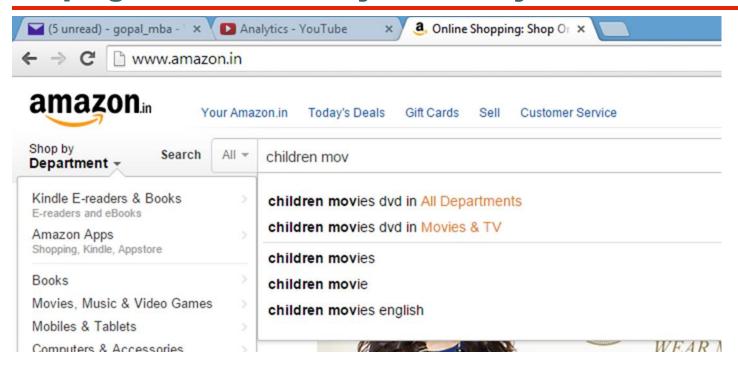
CEMEX – cement delivery unit in Mexico

- Cement is highly perishable on under construction site
- Construction companies need cement in time and ready to pay premium
- > CEMEX
 - ✓ with satellite links,
 - ✓ expert systems, and
 - ✓ a computer in every truck
 - ✓ predictive analytics to check for demand
 - ✓ routing optimization for efficient delivery,
 - ✓ Scheduling quicker delivery
- increased productivity of trucks by 35%
- Customers paid premium for quicker delivery





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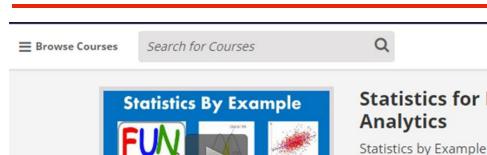




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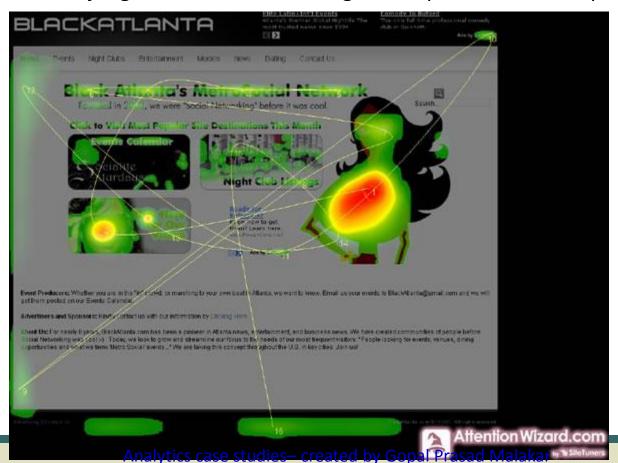
Logistic Regression (Credit Scoring) Modeling using SAS

★★★★ (2)

GOOGLE APPS

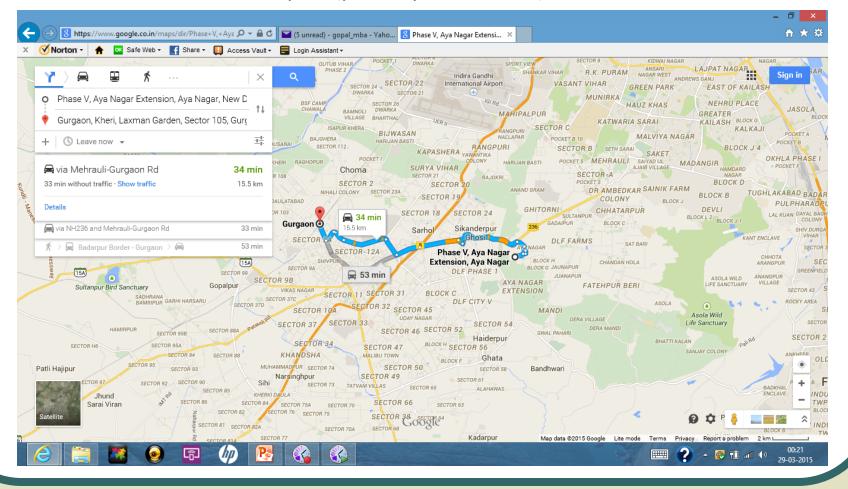
Google- search engine

- Careful Test and Control strategy for change in algorithm
- Captures almost all the aspects of experiment automatically
- Easy which links were clicked? How much time spent on pages?
- Even human judgment is collected using techniques like heat map



Google map

- Ever evolving
- Searches location and
- Gives route based on transport (public, personal etc.)



Google map

- Automatically throws correct route, which will take less time
- Reroutes when you can't take the prescribed route
- Knows your home, office and parking place
- When there is congestion, it throws more warning, before you start
- A big reason of success of android mobiles

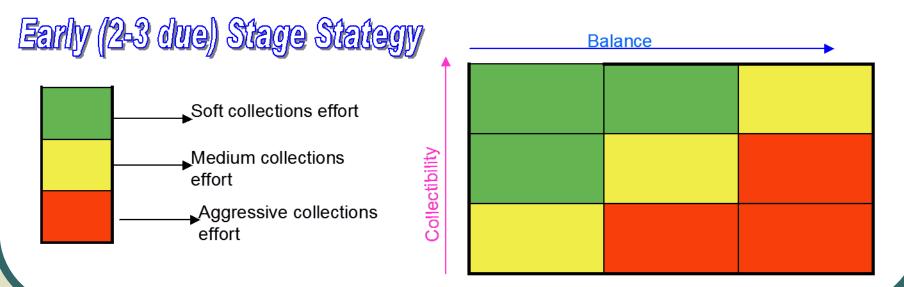
CONTACT CENTRE

Improve pronunciation

- Employees making mistakes in pronunciation
- Words were mostly from the script
- Analytics helps us to figure out relative importance of different words
- > QAs helped to detect the words which were pronounced wrongly
- Wrongly pronounced more frequent terms were selected
- Specific training was designed to improve on these words
- Result employees communication efficiency increased

Basic targeting strategy

- Limited number of contact center employees
- No bandwidth to connect with all delinquent account holder
- Figure out who will pay on their own (with some finance charge)
- Who are the high risk customer, who must be contacted to get money else it will turn out bad debt
- Good customer feel better
- Firm also saves on bad customer



CLOSING WORDS

Did you like it?

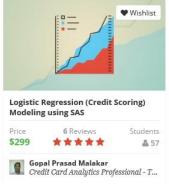
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