Digital Transformation Roadmap: A Collection of Retail Use Cases

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As a finalist company competing for work in the Hypothetical Global Organization in Retail and Algorithmic Marketing, our analytics consultancy shall demonstrate the methodology we follow when evaluating a digital transformation. After conducting an enterprise-wide data science discovery project, we narrowed down our results to from 6 to 3 different use cases. In evaluating each use case with an Analytical Use Case Prioritization and Impact Scorecard, we believe each use case will provide insight on how to move forward with potential data science initiatives from various divisions across the Hypothetical Global Organization.

1. The Prioritization and Impact Scorecard

The Analytical Use Case Prioritization and Impact Scorecard assesses and contrasts the selected potential use case projects from an impact, measurement, potential benefit, stakeholder group impacted, and executive sponsorship perspective. It evaluates each use case using 8 different criteria, and each criteria is scored on a scale of 1-5 (1 being the lowest, 5 being the highest) and a total average. The 8 criteria were evaluated accordingly and are:

"Groups Benefited" measures how the digital transformation benefited multiple groups, such as customers, suppliers, and business. "Cost Reduction Impact" scores on how the digital transformation reduces cost measured in time and money. "Satisfaction Related Impact" measures customer satisfaction through feedback such as interviews or surveys. "Profits Impacted" looks at profits per unit increases and measures highly with significant increases. "Aligned with Strategic Mission and Executive Support" highlights how the digital transformation aligns with a company's mission and has buy-in from high level executives. "Impact on Patient Outcomes" scores on how much a customer's experience is simplified and made convenient. "Volume of Individuals Impacted" measures a company's customer base and stakeholder count. "Impact to Society" highlights how digital transformation plays a transformational role in the company's environment and how society experiences the retail experience. The 6 use cases were ranked in descending order of total score according to the Impact Scorecard.

2. Analysis and Results of Scoring Use Cases

Using the Impact Scorecard as our assessment guide, we analyzed 6 company use cases for Customer Loyalty Program, Customer Sentiment analysis, Customer Segmentation, Augmented Reality, Customer Churn, and Targeted Marketing. We eliminated the lowest 3 total scoring use cases, while highlighting the top 3: Starbucks's Customer Loyalty Program, Amazon's Customer Sentiment Analysis, and Metlife's Customer Segmentation.

Customer Loyalty Program: Starbucks accounts for over ½ of US sales, with 14.2M active US members and growing 12% year-over-year in 2020 ("Starbucks" 2020). The customer loyalty program has become a

foundation of the company's strategy, with large new expansions such as providing rewards for all payment types, and announcing a new credit card for Rewards members in partnership with Visa (Oragui 2018). Led by the Chief Marketing Officer, with high visibility and executive sponsorship, this initiative continues to expand as the Starbucks app prompts Rewards members with Challenges to constantly incentivize usage and increase their Reward points for dollar spent (Soper 2018).

Customer Sentiment Analysis: In order to make informed purchasing decisions, "Consumers read at least 10 reviews before buying, and 57% only trust a business if it has a star-rating of 4 or more" (Roldos 2020). Amazon Comprehend is a NLP service that processes unstructured text to find insights. With many applications ranging from customer sentiment analysis in product reviews to automating digitization of medical records, this service indicates to customers the most reliable and relevant products ("Amazon" 2021). This use case scored highest on Satisfaction-related Impact by drawing insight on satisfaction from customer reviews, and Impact on Patient Outcomes by keeping customers informed on which purchases to make.

Customer Segmentation: Metlife strategically transformed its brand by adopting a customer centric approach. At the heart of this transformation was their customer segmentation model. After investing in a 50,000 customer research campaign, they created 5 customer segments: young achievers, concerned moms, financially mature, ho hum, and solo content (Waitumbi 2018). The biggest benefit of creating these segments was to then understand their target markets, which were young achievers and concerned moms. This information was passed along to the sales teams, who were given tools to effectively engage these customers (Stout 2020).

3. Conclusion and Takeaways

The strongest use cases had the largest measurable benefit across stakeholders and had significant executive sponsorship. We can see that Starbucks's and Amazon's use cases received the highest scores due to their "groups benefited" score, strategic alignment, and impact on customers compared to the other use cases. They also had strong executive support, which we identified as a key prioritization criterion without which a project would not succeed. While MetLife impacted a large number of customers and had executive support, its customer and business impact was middling compared to the top two. In contrast, Starbucks's loyalty program achieved phenomenal results in both customer impact with the number of active users and revenue per user, and Amazon with satisfaction for customers and impact on potential stakeholder outreach. The Impacted Scorecard highlights a holistic approach to viewing data transformations, bringing Starbucks's and Amazon's use cases as our overall top contenders.

Appendix

Analytical Use Case Prioritization and Impact Scorecard

Use Case	Assumptions	Groups Benefited	Cost- Reduction Impact	Satisfaction- related Impact	Profits Impacted	Aligned with Strategic Mission and Executive Support	Impact on Patient Outcomes	Volume of Individuals Impacted	Impact to Society	Total Score
Customer Loyalty Program: Starbucks	-14.2M active members' -39% of US sales	4	3	4	5	5	5	5	2	4.125
Customer Sentiment Analysis: Amazon Reviews	- Low costs and high profits are based on scalability to multiple applications	5	2	5	2	4	5	3	4	3.75
Customer Segmentation: MetLife	- Executive Buy-in - Assume Costs of transformation is approved	3	4	3	3	5	2	5	2	3.375
Augmented Reality: Home Depot Project Color	- Low costs and low profits are based on small impact to society	4	2	5	2	4	4	3	3	3.375
Customer Churn: AgileThought	- retaining customers is a viable revenue stream - predictive modeling upkeep is baked into solution	3	5	3	5	4	3	2	1	3.25
Targeted Marketing: 7FAM	-225,000 email recipients -Revenue per user \$1.67 for control group	4	3	4	4	3	3	4	1	3.25

References

- "Amazon Comprehend." AWS. Accessed January 24, 2021. https://aws.amazon.com/comprehend/.
- Oragui, David. "The Success of Starbucks App: A Case Study." *The Manifest*, June 12, 2018. https://themanifest.com/mobile-apps/success-starbucks-app-case-study.
- Roldos, Ines. "5 Real-World Sentiment Analysis Examples." *MonkeyLearn Blog*, July 20, 2020. https://monkeylearn.com/blog/sentiment-analysis-examples/.
- Soper, Taylor. "Starbucks Meets Expectations with \$6B in Quarterly Revenue, Shares down Slightly." *GeekWire*, April 26, 2018.

 https://www.geekwire.com/2018/starbucks-meets-expectations-6b-quarterly-revenue-shares-slightly/.
- "Starbucks to Update Loyalty Program and App This Fall to Offer More Ways to Pay and Earn Stars." *Starbucks*, 2020.
 - https://stories.starbucks.com/press/2020/starbucks-to-update-loyalty-program-and-app-this-fall-to-offer-mo re-ways-to-pay-and-earn-stars/.
- Stout, Craig. "MetLife Rebrand: The Power of a Customer Centered Approach." *Prophet*. Prophet Brand Strategy, July 21, 2020. https://www.prophet.com/2016/10/power-customer-centered-approach-metlife-rebrand/.
- Waitumbi, R. "MetLife: A Case Study in Customer Segmentation." Technology and Operations Management, November 13, 2018.
 - https://digital.hbs.edu/platform-rctom/submission/metlife-a-case-study-in-customer-segmentation/.