Sinhmar, Arun

Spclst, Quant. Sciences

Manager: Senthil Murugan

Evaluated by: Senthil Murugan

2020 Performance Review

Organization: Promotion Optimization (Senthil Murugan) (SUP53012191)

Location: USA - Pennsylvania - North Wales - Upper Gwynedd

01/01/2020 - 12/31/2020

Overall

Rating:	Successful
Comment:	Arun joined the Promotion Optimization team as a new member in the beginning of 2020 and quickly started managing and contributing directly to various projects and business needs. This is well above the expected pathway for a specialist position. Arun is *highly detail oriented with an inquisitive mind* – a great trait for a successful analyst. Arun is a quick learner and is readily willing to adapt to various assigned works and help the team sincerely.

When Arun joined the team, he was assigned a rather challenging problem to solve, that is, develop a digital campaign simulation system following the research from Google and evaluate pros and cons of some of the methods used to measure the digital impacts. He embraced the challenge whole heartedly and developed and delivered the expected results. He seems happy to take on relatively hard problems.

As one of the team members left Merck this year, Arun was asked to take more responsibilities and help manage the HCC analysis for several brands which was new to him. He dived in, dedicated his time to undergo a detail-oriented learning process and is quickly becoming an expert in the HCC promotion measurement and strategy area – an area where business spends hundreds of millions of dollars. Arun performed quite well when such higher-level responsibilities were assigned to him. Arun is very collaborative, reaches out to several team members when he wants to learn something and most importantly takes a dogged approach until he gets his answer.

As we continue our journey this year some of the areas where he could develop further are speed of project executions and continuously improve on concise communications and presentations. I am confident that he is up to this challenge as well.

In his first year, Arun has made enormous business contributions and performs at a level higher than his current position. Promotion Optimization team is excited to have Arun as a new addition to the team. I look forward to work with him in 2021 and many years beyond. Below are some of his key projects and accomplishments in 2020 and the stakeholder feedbacks.

Key Accomplishments:

Decision Support that guided DET & MAIO teams:
- DET impact measurements for multiple waves: Dificid. Primary consultant for some of DET brands.
- Researched tumor specific statistical models to measure personal & non-personal digital promotions.

Completed Lynparza HCC Mkt. Mix analysis – a New brand.
- This analysis informed several promotion investments worth **>$5 MM**

Optimized HCC 2021 budget allocations for key brands.
- Brands: Lynparza, Nexplanon (FB reallocation, TV), Diabetes
- Quickly learned Crossix analysis and have a deep knowledge on HCC promotions.
- Readily jumped in and took a lead in new HCC client support projects.

People & COE development
- Implemented Digital Ad Simulation System (DASS) based on Google's paper. Evaluated relevance and accuracy of various attribution models & concluded that none of the rule-based attributions measure the real digital impacts.
- Developed models to determine optimal cost per click ceilings for Diabetes and Nexplanon.
- Very detail oriented & quick learner. Has curiosity and motivation to learn new things (business, analytics etc).
- Helped to build a framework to classify social impacts (FB).
- Great collaborator with multiple teams.

Stakeholder Feedbacks:

One of the stakeholders expressed that Arun contributed by working very closely with him to complete multiple ROI analyses for the DET. In addition to providing ROI he also helped to provide additional insights and recommendations that will help support the brand and the work being done by the DET to optimize our efforts.

This stakeholder appreciates his communication skills and quoted that Arun *"was very good at articulating complex ideas in ways that everyone on the DET was able to understand. We also really appreciated the other insights and suggestions that he brough to the team"*

Arun was very collaborative. Definitely showed great skills around Withholding to Sharing and Knowing to Learning. He also made sure to get everyone's input and feedback on the presentations.

Comment:
In 2020, I worked on evaluating impact of DTC and DET campaigns.
- I evaluated impact of 3 DIFICID DET HCP digital campaigns, highlighted caveats in current segmentation used in DET campaigns and gave recommendations on how to approach DET campaign development and customer targeting.
- I evaluated promotion impact of Lynparza's 2019 DTC campaign with about $5M spend, assisted in justifying historical investments and determining if additional funds are needed for 2021 with the launch of new indications.

Using Crossix Net Impact results, I also supported multiple brand teams (Diabetes, Nexplanon and Lynparza) in estimating ROIs for DTC campaigns at granular level. The total DTC investment across 3 brands was approximately 32M.

I also worked on couple of initiatives:
- Designed Digital Advertisement Simulation System (DASS) for modelling digital advertising and its impact on user behavior to measure performance of current MMM.
- Build Marketing Mix models for main Keytruda indications - Lung and non-Lung models to estimate the impact of HCP digital promotions on sales using HCP Claims data.

Priorities

Build a Search Engine Marketing (SEM) Performance model to determine CPC ceilings for different Paid Search campaigns (branded, unbranded, etc.) based on multiple ROI scenarios. These CPC values will be used in a pilot campaign for real time bidding for branded/ branded keywords and for Paid Search cost saving.

| Due Date: | 10/30/2020 | Status: | Completed | Completion Date: | 10/30/2020 |

Category: Business

Comments:

Build Marketing Mix models for main Keytruda indications - Lung and non-Lung models to estimate the impact of HCP digital promotions on sales.

- Tested a new data source – HCP level Claims data and multiple variations of modelling dataset from time aggregation to geography aggregation.
- Compared % sales contribution between original DDD models and Claims models.
- Created promotion response curves using additional Machine Learning techniques like GAM and Gradient Boost models.

| Due Date: | 12/31/2020 | Status: | Completed | Completion Date: | 12/03/2020 |

Category: Development

Comments:

- **Carry a meaningful compliance priority, complete all required compliance training on time, and conduct themselves in a manner consistent with the letter and spirit of our policies**
- **Constructively engage compliance and legal to gain input on business strategies, plans and initiatives.**

| Due Date: | 12/31/2020 | Status: | Completed | Completion Date: | 12/04/2020 |

Category: Business

Comments:

Complete RWDEx training to transition to cloud-based computing for faster analysis/ modelling execution.

| Due Date: | 12/31/2020 | Status: | Completed | Completion Date: | 12/04/2020 |

Category: Business

Comments:

Design Digital Advertisement Simulation System (DASS) for modelling digital advertising and its impact on user behavior.

- The simulation was used to test performance of multiple position-based attribution models, commonly used in the industry. Results showed that all attribution models failed to capture true causal value of advertising.
- The simulation results were also used to compare performance of existing Marketing Mix Models (MMM). MMM estimates were within simulation's confidence interval.

| Due Date: | 03/31/2020 | Status: | Completed | Completion Date: | 03/31/2020 |

Category: Development

Comments:

Evaluate impact of 3 DIFICID DET HCP digital campaigns (Intent, Consideration and Fast Start) which were live from Oct'19 - Mar'20.

- Calculated impact on total sales and channel level ROIs of 3 DIFICID DET HCP digital campaigns along with impact that could solely be attributed to DET activities.
- Highlighted caveats in current segmentation used in DET campaigns and gave recommendations on how to approach DET campaign development and customer targeting.

Due Date: 10/30/2020   Status: Completed   Completion Date: 10/30/2020

Category: Business
Comments:

Evaluate promotion impact and Channel ROI estimates of Lynparza's 2019 DTC campaign.

- Calculated impact on sales and channel level ROIs of 2019 LYNPARZA DTC campaign with about $5M spend.
- Assisted in justifying historical investments and determining if additional funds are needed for 2021 with launch of new indications.

Due Date: 11/30/2020   Status: Completed   Completion Date: 11/30/2020

Category: Business
Comments:

Support Crossix 2019-2020 HCC media analysis for Diabetes, Nexplanon and Lynparza.

- Supported multiple brand teams (Diabetes, Nexplanon and Lynparza) in estimating ROIs for DTC campaigns at granular level – publishers, audience segments, targeting tactics and multiple paid search campaigns with about $32MM spend.
- Provided guidance to media and brand teams for 2021 DTC channel mix based on above ROI results.

Due Date: 12/31/2020   Status: Completed   Completion Date: 12/04/2020

Category: Business
Comments:

Support Nexplanon with their first TV campaign in 2021 with about $10M spend by creating multiple ROIs scenarios based on variations in campaign design.

Due Date: 10/30/2020   Status: Completed   Completion Date: 10/30/2020

Category: Business
Comments:

Career

Job Interest:

Willing to Travel:
Travel Amount:
Additional Information:

Long Term: Yes/No
Areas:
Short Term: Yes/No
Areas:
Additional Information:

Career Preferences: Cross Functional, Expand beyond role, Broaden

Career Interest:
- Taking on from Alex's work, I want to continue exploring new ways of improving performance of Marketing Mix Models to better answer Brand/ Marketing team's questions
- I would like to lead or be part of cross-functional projects within MAIO, if opportunity is available.
- I want to continue working on research initiatives like DASS that can help answer business problems that our team repeatedly comes across.
- Continue to be analytics asset to Brand/ Marketing teams and help them make business decisions.