

A Beginner's Guide to Launch a Successful Digital Marketing Career with SAS®

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ABSTRACT

Digital marketing leverages search engine optimization (SEO), data analytics, and content management to capture and nurture customer leads. The most used digital channels involve search engines, social media, and email marketing. Each channel generates important customer data which can be analyzed to glean business insights and develop effective inbound and outbound marketing campaigns. This paper will present the “hard skills” in terms of the SAS® tools and techniques as well as the “soft skills” in terms of the personal essential skills for the beginner digital marketers. It is important to develop a balanced combination of both types of skills such that aspiring digital marketers can get a head start for a successful career.

INTRODUCTION

I live in Canada and graduated in 2021 with an MBA degree with concentration in digital marketing. I then started my career as a digital marketer and social media specialist. Although I had four years of prior experience in traditional marketing and advertising, I The reason is that digital marketing enables me to track and measure the outcomes of my marketing campaigns in real time. It was difficult to assess the effectiveness of my marketing and advertising campaigns using the traditional approaches. For example, I could track how many people in the target audience saw my ad. However, I could not determine how many people acted after seeing the ad. The real time feedback from digital campaigns enabled me to fine-tune and continually improve the design, development, and execution of outreach campaigns. This allowed me to strive to optimize the messaging content and delivery approach for each unique target audience. In my experience, acquiring the appropriate combination of SAS® knowledge and sound interpersonal skills were the critical building blocks in the development of my young career as a digital marketer. The digital technologies and SAS® analytics offer vast opportunities for new innovations to enable creative digital marketing solutions that were not possible in the past. Beginner digital marketers have a unique opportunity in the digital era to learn and develop new technical, analytical, and people interaction skills and thrive in their careers.

TOP SAS SKILLS FOR DIGITAL MARKETERS

SAS offers multiple capabilities that are very useful for digital marketing work. It is important that the user develops a strategy to put these capabilities to best use for their specific needs. I found the following SAS skills to be especially useful in my work. Here are the recommended top SAS® skills:

1- SAS® Enterprise Miner

A critical aspect of digital marketing involves data mining to help with initial development of a campaign and subsequent improvements. I found SAS® Enterprise Miner (SAS® Institute) to be extremely valuable as I started my own career. I have adapted its Sample, Explore, Modify, Model, and Assess (SEMMA) methodology to structure each of my marketing projects. As a result, SAS® Enterprise Miner has enabled me to gain useful insights from a vast number of data points to glean better ways to approach various markets and audiences. For this reason, I recommend that beginner digital marketers prioritize learning about SAS® Enterprise Miner and start using it quickly to develop a framework for their work.

2- SAS® Marketing Automation

SAS Marketing Automation (SAS® Institute) enables digital marketers to plan, test and execute marketing campaigns. Digital marketers can define their markets segments they want to target, prioritize the rules for target markets, pick the communication channels to use, perform data analysis on their results, and use lessons learned to modify the campaign to be more effective in the next phase. This will enable digital marketers to transform vast amounts of data into valuable insights to make optimum decisions, generate new business, and grow revenues.

3- SAS® Data Visualization

SAS Data Visualization (SAS® Institute) is extremely useful for digital marketers to glean the business implications from large data sets. The variety and volume of Big Data available from each market sector can be overwhelming. It's often difficult to put the data in perspective and understand the subtle nuances of each market sector or specific target audiences. By using SAS Data Visualization techniques, digital marketers can transform complex data analytics into various graphical formats and pictorial diagrams that are easy to understand. As a result, digital marketers can detect new market patterns and critical emerging trends that they most likely would have missed without data visualization capabilities.

4- GENERAL FRAMEWORK WITH STEP-BY-STEP GUIDE

Here is a step-by-step guide for beginner digital marketers:

Step 1: Data Import and Exploration (SAS® Institute)

- Importing data into SAS® Enterprise Miner
- Exploring the dataset for insights

Step 2: Data Preparation and Cleaning (SAS® Institute)

- Cleaning and transforming the data
- Handling missing values and outliers

Step 3: Model Building (SAS® Institute)

- Selecting appropriate modeling techniques
- Building and validating models

Step 4: Model Deployment and Evaluation (SAS® Institute)

- Deploying models in real-world scenarios
- Evaluating model performance

Step 5: Model Interpretation and Deployment (SAS® Institute)

- Explaining model interpretability and its importance
- Deploying models into production systems:

```
```sas
/* Example: Deploying a Model */
proc score data=new_data out=predictions;
score /table=your_model;
run;
```
```

Step 6: Hyperparameter Tuning for Optimization (SAS® Institute)

- Tuning hyperparameters for improved model performance
- Using grid search or random search techniques:

```
```sas
/* Example: Hyperparameter Tuning for Decision Trees */
proc hpforest data=your_data;
input predictor_variables;
target response_variable;
```

```
/* Specify hyperparameter grid, optimization criteria, etc. */
run;
...
```

#### Step 7: Time Series Forecasting (SAS® Institute)

- Leveraging time series analysis for forecasting
- Using SAS® Enterprise Miner for accurate predictions:

```
```sas  
/* Example: Time Series Forecasting */  
proc arima data=your_data;  
identify var=response_variable;  
estimate p=1 q=1;  
forecast lead=12 interval=month id=date_variable out=forecasted_data;  
run;  
...
```

Step 8: Customer Segmentation (SAS® Institute)

- Clustering customers into segments for targeted marketing
- Utilizing clustering algorithms in SAS® Enterprise Miner:

```
```sas  
/* Example: Customer Segmentation with K-Means */
proc fastclus data=your_data out=customer_segments maxclusters=5;
var predictor_variables;
run;
...
```

#### Step 9: A/B Testing and Multivariate Testing (SAS® Institute)

- Conducting A/B testing experiments for campaign optimization
- Analyzing results using SAS® Enterprise Miner:

```
```sas  
/* Example: A/B Testing Analysis */  
proc ttest data=your_data;  
class test_group;  
var conversion_rate;  
run;  
...
```

Step 10: Customer Lifetime Value (CLV) Analysis (SAS® Institute)

- Calculating CLV using SAS® Enterprise Miner and survival analysis
- Using CLV to inform customer acquisition and retention strategies:

```

```sas
/* Example: Customer Lifetime Value Calculation */
proc lifetest data=your_data method=actuarial;
time tenure * churn_indicator(1);
strata customer_segment;
run;
```

```

5- REAL-WORLD DIGITAL MARKETING PROJECT WITH IMPLEMENTATION STAGES

Campaign "SmartSavings Summer Sale" to demonstrate how SAS can be utilized at each stage:

Stage 1: Campaign Planning

- **Campaign Objective:** The "SmartSavings Summer Sale" aims to boost online sales during the summer season by offering discounts on select products.
- **Use of SAS:** In this stage, SAS is used for data analysis to identify which products have historically performed well in the summer. SAS tools can help analyze past sales data and customer behavior to make informed decisions on which products to discount.

Stage 2: Audience Segmentation

- **Campaign Objective:** Segment the audience for the summer sale into different categories, such as loyal customers, occasional shoppers, or first-time visitors.
- **Use of SAS:** SAS Enterprise Miner is employed to create customer segments based on purchase history, demographics, and online behavior. This segmentation helps tailor marketing messages to specific groups.

Stage 3: Content Creation

- **Campaign Objective:** Create compelling marketing content, including email campaigns, social media posts, and website banners, to promote the "SmartSavings Summer Sale."
- **Use of SAS:** SAS Visual Analytics assists in creating visually engaging content by generating charts and graphs that showcase the top-selling products, historical sales trends, and the expected savings during the sale.

Stage 4: Email Marketing

- **Campaign Objective:** Send targeted emails to customers announcing the "SmartSavings Summer Sale" and enticing them to visit the website.
- **Use of SAS:** SAS Marketing Automation is employed to schedule and send personalized email campaigns to different customer segments. It also tracks email open rates and click-through rates.

Stage 5: Social Media Promotion

- **Campaign Objective:** Leverage social media platforms to increase awareness of the sale and engage with the audience.
- **Use of SAS:** SAS Social Media Analytics is used to monitor social media channels for mentions of the campaign. Sentiment analysis can be performed to gauge public opinion about the sale.

Stage 6: Landing Page Optimization

- **Campaign Objective:** Ensure the landing page for the "SmartSavings Summer Sale" is user-friendly and optimized for conversions.

- **Use of SAS:** SAS can be used to perform A/B tests on different landing page designs and content. The landing page can be modified based on data-driven insights to improve conversion rates.

Stage 7: Real-time Analytics

- **Campaign Objective:** Monitor the campaign's performance in real-time and adjust as needed.
- **Use of SAS:** SAS provides real-time analytics dashboards, which allow you to monitor website traffic, click-through rates, and conversions as they happen. If certain products or segments are underperforming, you can adjust the campaign in real-time.

Stage 8: Results Analysis

- **Campaign Objective:** Analyze the results of the "SmartSavings Summer Sale" to determine its success and identify areas for improvement.
- **Use of SAS:** SAS is employed to create post-campaign reports that analyze key metrics such as sales, return on investment (ROI), and customer engagement. This data is crucial for understanding the campaign's effectiveness.

Stage 9: Optimization for Future Campaigns

- **Campaign Objective:** Learn from the campaign's results to improve future marketing efforts.
- **Use of SAS:** SAS Enterprise Miner can be used for predictive analytics to forecast which products are likely to perform well in future summer sales. This insight can inform inventory planning and marketing strategies for upcoming seasons.

Stage 10: Feedback and Iteration

- **Campaign Objective:** Gather feedback from customers and the marketing team to iterate and refine future campaigns.
- **Use of SAS:** Collect feedback through surveys and social media sentiment analysis. Use SAS to analyze this feedback and integrate it into your marketing strategies.

The "SmartSavings Summer Sale" campaign showcases how SAS can be integrated into each stage of a digital marketing campaign to improve decision-making, target the right audience, create engaging content, and optimize campaign performance. The insights gained from SAS help drive successful digital marketing initiatives.

TOP PERSONAL SKILLS FOR DIGITAL MARKETERS

In addition to SAS technical and analytical skills, I learned the following personal attributes are very useful to reinforce and complement the SAS skills. The combined comprehensive skillset is a strong enabler for creating significant career success. Here are the recommended top personal skills:

1- KNOW YOUR STRENGTHS AND WEAKNESSES

It is very important for a beginner digital marketer to be realistic and have a good grasp of what they can and cannot do in the early phase of their career. This self-awareness will allow extra time and effort to be allocated to improve the skills that are lacking to better prepare for the future. In addition, a realistic assessment of personal skills will prevent an early career professional from over-committing to campaigns and will likely avoid missed deadlines and poor marketing outcomes.

2- THINK STRATEGICALLY

It is critical to develop the big picture grand strategy and a set of objectives for each digital campaign to know the definition of success before you start. It's also important to constantly keep the big picture in mind and make sure all short-term efforts and milestones are executed in accordance with your long-term campaign objectives. Another aspect of strategy is to develop a well-defined schedule of activities and manage the time efficiently. The digital realm provides a great deal of data which can lead to many

options on how to proceed. The specific steps and associated timelines to complete them must be analyzed carefully to determine the optimum digital campaign parameters.

3- WORK ON YOUR COMMUNICATION SKILLS

Strong communication and interpersonal skills are important at all stages of your career. However, I think they are the most critical for beginner professionals. The importance of communication skills is amplified further for digital marketers because they constantly encounter many people both in-person and virtually. Given their roles, digital marketers must be able to communicate effectively in writing and speaking, including public speaking and social media. In addition, they must be able to listen well and be keen observers to glean from spoken or written words and understand the subtle nuances from their audience feedback. Besides personal awareness and practice, it's also very worthwhile for early career marketers to invest in taking courses on interpersonal skills and leadership development.

4- IMPROVE YOUR FINANCIAL KNOWLEDGE

It's important for an early career marketer to be a good steward of the organization's resources. Marketing campaigns tend to be expensive in terms of both funds spent and the time invested. Therefore, acquiring basic financial skills will be advantageous in developing realistic marketing budgets and to figure out the return on investment (ROI) for each campaign. If you have earned an MBA degree already, you likely have all the financial skills you need to assess your marketing ROI. If not, you can think about enrolling in an MBA program near you or an online Executive MBA program to enhance your financial and leadership skills.

5- BUILD YOUR PROFESSIONAL NETWORK

It takes time to build a large high-quality professional network. There will be a lot of demand on your time as a beginner digital marketer to build up various skills for your career toolbox. The more time spent on acquiring one skill would necessarily leave less time for another skill. It will be useful to apply your judgement based on your own priorities to "balance" various goals and develop a ranked list for your personal skill development priorities. I recommend developing a professional network which should belong somewhere on your list. You can start small as I did and build your network over time as you will naturally work with more and more digital industry participants with each campaign. Your network can be expanded more rapidly by joining local, national, or international digital marketing working groups. Also, you can accelerate your progress by attending the industry venues that are relevant to the specific market segment(s) that you target.

CONCLUSION

Based on my own career development trajectory and experience, I believe this is an exciting time to start a career in the emerging field of digital marketing. There is a vast amount of Big Data which can be mined, analyzed, visualized, and monetized. The digital marketing career offers a wide range of options to significantly contribute to search engine optimization (SEO) and diverse social media platforms. The timing is right to join the nascent digital era to contribute as well as accelerate the adoption of digital marketing methodologies. Digital marketers can launch successful careers through acquiring and nurturing a combination of attributes with SAS® analytical and visualization skills as well as interpersonal and leadership skills. There is a wide choice of options on the ways to learn and upgrade digital marketing career skills which are mutually reinforcing and create greater positive impact on job performance. Regardless of the approach used to acquire digital marketing skills, it's important for early career professionals to learn and apply the skills quickly to get a head start for a successful and rewarding career.

REFERENCES

SAS Institute Inc. <https://www.sas.com>.

SAS® Enterprise Miner 15.3: High-Performance Data Mining

SAS® Marketing Automation: Transforming Data into Actionable Marketing Insights

SAS® Data Visualization: Uncovering Business Insights from Big Data

SAS/ETS® 15.1 User's Guide: Data Import and Exploration, Data Preparation and Cleaning, Model Building, Model Deployment and Evaluation, Model Interpretation and Deployment, Hyperparameter Tuning for Optimization, Time Series Forecasting, Customer Segmentation, A/B Testing and Multivariate Testing, Customer Lifetime Value (CLV) Analysis

ACKNOWLEDGMENTS

I am very grateful for the support from Kirk Paul Lafler in reviewing my paper.

RECOMMENDED READING

- *Base SAS® Procedures Guide*
- *SAS® For Dummies®*

CONTACT INFORMATION <HEADING 1>

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