

A DESIGN OF B2B MARKETING STRATEGY FOR THE METER DATA MANAGEMENT SYSTEM SOFTWARE

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ABSTRACT

The electric utility industry is undergoing a transformation by modernizing the power grid. The advancement of technology in order to improve communications among utilities and customers, and also the grid and its operators, is done by using an essential component of the smart grid called MDMS software. It gathers and retains meter data from a head-end system and transforms that data into information usable for many other utility applications such as billing, customer information systems, and outage management systems. This article presents a design of the B2B marketing for the MDMS software in the utilities market. The study shows the concept of customer analysis, market analysis, the need for marketing collaterals and analysis of various digital marketing using Key Performance Indicators.

Keywords: Smart Grid, MDMS, Digital Marketing, KPIs.

I. INTRODUCTION

Meter Data Management System imports the data, then validates, cleans, and processes it before making it available for billing and analysis. A gradual change in the transformation from traditional grid to smart grid needs an MDMS as its component to perform long-term data storage and management for the vast quantities of data delivered by smart metering systems. This paper presents a design of B2B marketing Strategy for the Meter Data Management System Software. B2B marketing is a type of marketing practice used by different parties or firms.

In case of companies that provide MDMS software they need to follow a B2B marketing strategy. It enables them to market products or services to other businesses or organizations, incorporate them into their own devices or services, or use them to supplement their work. It includes customer research, understanding the market that models like Porter's Five Forces model, designing marketing collaterals that allow the customers to have a smooth journey. It is then followed by using the designed marketing collaterals to market through digital or traditional platforms. This paper discusses in detail regarding the selection of digital platform and the appropriate one to be chose for the MDMS software. The profits for marketing to utilities can be measured by determining key performance indicators that evaluate the success of marketing by organization for a particular product.

II. LITERATURE REVIEW

D. Matheson, et al. [1] has discussed regarding the electricity market, the accuracy of meter data for billing and analysis is critical. Meter data is generally used in billing and repatriation for industrial users and bulk trading partners who have direct data access, and secondary in trading, transmission operations and planning, and load forecasting and scheduling for those who do not. This study outlines MDM infrastructure and implementation details. Francesca Brosan [2] summarized in this paper and highlights the key findings of a two-year study of best practices in business-to-business (B2B) digital marketing. The study's goal is to give practitioners insight into what senior B2B decision makers believe are the most effective digital activities for achieving marketing goals. The findings serve as a practical benchmark against which marketers can assess their own activities and build ROI arguments for additional budget and resource allocation.

Mirna Martinac, et al. [4] in this paper describes theoretical aspects of Porter's five forces model on the Croatian fixed telephony industry and determines the trends and factors that influence this industry using research findings. This analysis revealed a solid profit potential for the industry, which is based on services that have become an integral part of daily life in both the business and consumer segments. The analysis of new

services/products entering the market revealed a low threat of entry and substitution. Drjagdeep Singh, et al. [5] discusses that different channel will have their own set of advantages and disadvantages, but companies and industries are increasingly utilizing digital media for a variety of business purposes such as customer engagement, product and service reviews, customer acquisition (both existing and new), selling products and services, feedback management, and many more. This paper seeks to learn more about digital KPIs and metrics, as well as why they are necessary and important in the digital era.

It may be deduced from a thorough comprehension of the papers' literature reviews that there is a need for the meter data management softwares to make used of the smart meters that are deployed in smart grids. As a result, a design of the B2B marketing strategy for the MDMS software is the answers to the problem. This has resulted in practical applications for clients when considering their digital marketing activities and how they can best benefit from them.

III. METHODOLOGY

The electricity sector is experiencing a change, a revolution in the generation and supply of electricity. Smart grid technology has revolutionized the way utility companies and customers interact, and also enables being powered by renewable resources and energy storage into the grid.

To design a B2B marketing Strategy for the MDMS software, the following steps need to be followed-

1. Start with customer research.
2. Marketing Analysis through Porters 5 forces model.
3. Design B2B marketing collaterals for a smooth customer journey.
4. Establish the key digital marketing metrics and KPIs.
5. Create reports and compare different digital marketing channels.
6. Choose and implement the most appropriate marketing channel for the product.

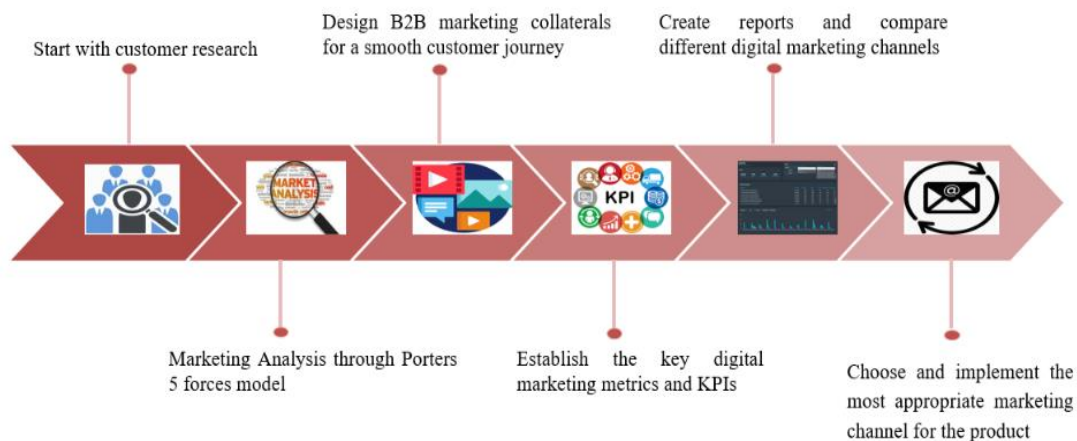


Figure 1: Design of B2B marketing strategy for MDMS software

Step 1:

Start with customer research-

The global smart meter data management market was worth \$830.45 million in 2019 and is expected to reach \$2.49 billion by 2027, growing at a 15.3 percent CAGR between 2020 and 2027.

Basic Functionalities of MDMS-

- Data from a remote meter is read at predefined intervals (push/pull).
- TOD/TOU metering
- Prepaid functionality
- Net Meter Billing
- Detection, notification, and reporting of alarm and occurrences.
- Virtual Load Limiter, as well as connection and disassociation based on predefined/on-demand conditions.
- Remote firmware upgrade.

Figure 2 shows an MDMS software used for analytical and reporting functions.



Figure 2: Meter Data Management Software

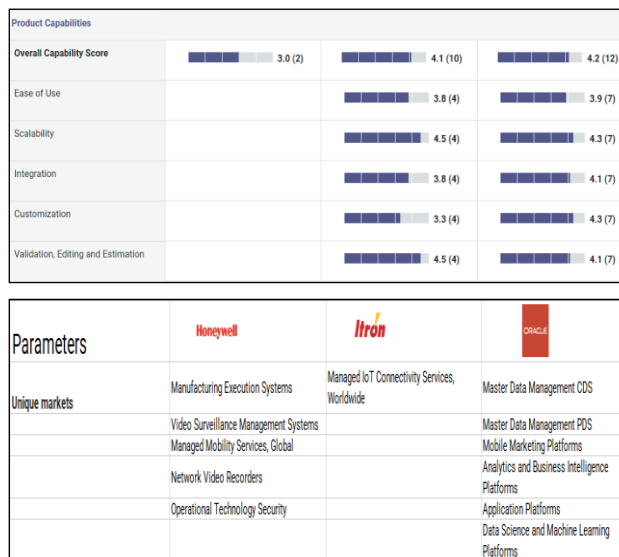


Figure 3: Benchmarking of the competitors

Step 2:

Marketing analysis through porter’s five forces analysis-

• Bargaining power of supplier

The Indian electricity sector has a lot of untapped potential and has seen massive growth in energy demand, generation capacity, transmission, and distribution network. India is expected to invest \$44.9 billion in smart grids, distribution automation, energy storage, and other smart grid market segments. This investment will assist India in reducing the country's 22.7 percent transmission and distribution loss. This shows that there are many companies that exist in the smart meter market which causes the bargaining power of the supplier to be at a higher rate.

• Bargaining power of customers

MDMS software is used by utility companies like water, electricity, gas and heating etc. Currently there are around 60 electricity distribution and transmission companies in India. As there are many companies that provide the MDMS software the customer has an edge over the higher bargaining power. But as the software are sold at a higher price and require configuration with the smart meters, buyer’s ability to substitute or switch to the software is at a lower rate.

• Competitors in MDMS market

Benchmarking is the practise of comparing a business function and performance indicators to those of the industry and their best practises. The data acquired from benchmarking as shown in figure 3. can then be used to identify flaws in an organization's processes, allowing it to gain a competitive advantage.

• Threats of substitutes and new entrants

The MDMS software can be substituted by Meter Data Analytics softwares. But it is more efficient to use an MDMS software when smart meters are deployed, and their information is to be used for various functions like analysis and reporting. The threats of new entrants are low as of now, because the entrants of start-ups in this market also requires huge investment and follow up of governments policies.

Step 3:

Design B2B marketing collaterals for a smooth customer journey.

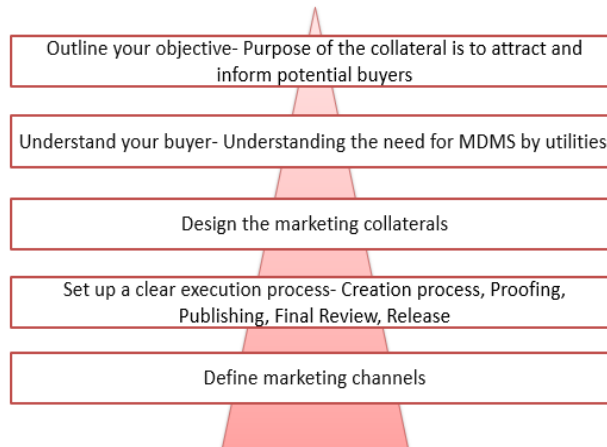


Figure 4: Steps For Designing Marketing Collaterals

Marketing collaterals are promotional media materials for a company's MDMS software. Print materials such as posters and flyers are included, as well as digital content such as catalogues and e-magazines.

Step 4:

Establish the key digital marketing metrics and KPIs.

A key performance indicator (KPI) is a key measure which indicates how well and effectively an organization meets its business goals and objectives.

Step5:

Create reports and compare different digital marketing channels.

Video marketing is currently one of the most dominant digital marketing strategies, and it is estimated to remain so for the next 5-10 years. This will increase readership and conversion, as well as allow the firm to get more mileage out of the content.

Email marketing is a non-intrusive way of delivering highly relevant content to a subscriber's inbox. Email campaigns are a great way to grow customer base and sales.

These are some of the digital marketing channels where marketing collaterals can be used to increase product sales.

Some KPIs considered in Website Traffic Report are:

- Sessions: Measure the volume of visits to your website.
- Users: Measures unique visitors to your website.
- Pageviews: Measure the total count of pages viewed on the company's website.
- Average time on page: Measures the amount of time (on average) users spend on your website.
- Bounce rate: Measures the percentage of sessions that leave your website without taking any additional action.
- Entrances: Measures the entrance points (i.e., your homepage, pricing page, etc.) users visit your website through.
- Exit rate: Measures the rate at which visitors leave your website from specific pages.

Figure 5 shows a dashboard created for website traffic report.

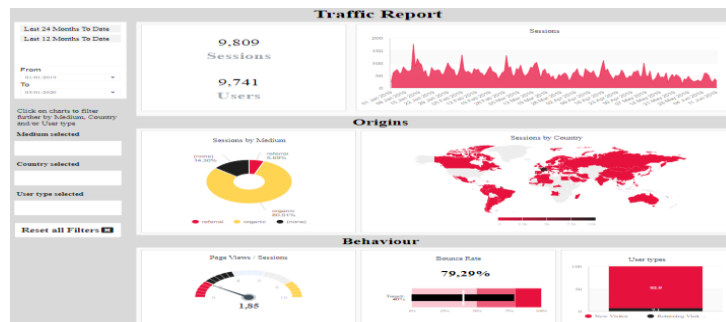


Figure 5: Website Traffic Report

Some KPIs considered in Email Campaigning are:

- Open Rate (OR)- The open rate compares the amount of emails opened to the total number of emails delivered.

$$\text{Open Rate} = (\text{Emails opened} / \text{Emails delivered}) * 100$$

- Click Rate-It is the proportion of individuals who clicked on a hyperlink or image within an email.

$$\text{Click Rate} = (\text{Emails clicked} / \text{Emails delivered}) * 100$$

- Click-through rate (CTR)- This is the number of links clicked in an email message divided by the number of emails sent.

$$\text{CTR} = (\text{Emails clicked} / \text{Emails opened}) * 100$$

- Bounce back rate- It is the proportion of email addresses in the subscriber list that did not receive your message because it was returned by the recipient mail server.

$$\text{Bounce Rate} = (\text{Returned emails} / \text{Sent emails}) * 100$$

- Conversion rate- It is the proportion of subscribers who take a specific action after reading our email.

$$\text{Conversion Rate} = (\text{Number of users who have completed the action} / \text{Emails delivered}) * 100$$

Figure 8 shows a dashboard created for email campaigning.

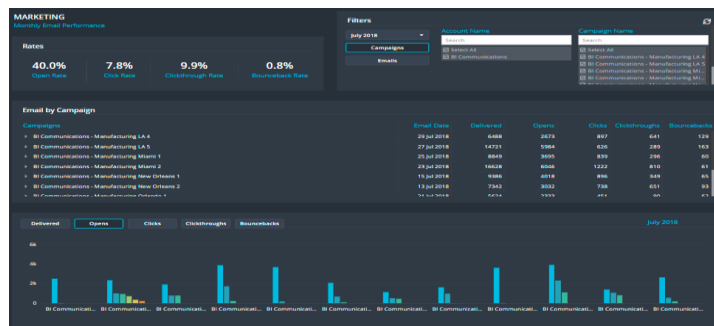


Figure 6: Email campaigning dashboard to evaluate its KPIs.

Step 6:

Choose and implement the most appropriate marketing channel for the product. For B2B marketing of MDMS product, the appropriate marketing channel is email marketing.

IV. RESULTS AND DISCUSSION

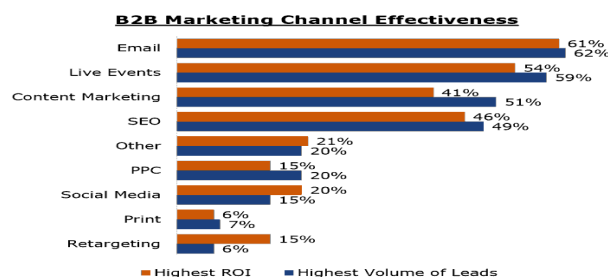


Figure 7: Effectiveness of B2B marketing channels

Email marketing is a direct and trusted online communication channel. Thus, with the right email strategy, B2B companies can educate and support business audiences while also gaining new customers.

V. CONCLUSION

MDM systems have emerged as utilities' preferred way of handling smart metre data because most AMI system head-ends only collect daily data. The tools available to analyse data in the MDM field have changed dramatically in the recent years. The proposed methodology ensures the increase in sales of the MDMS software a company provides to increase the efficiency of the utilities working. To maintain a track of the sales of MDMS software various digital channels can be used, out of which Email marketing is one of the most responded channels which comes with higher percentage of ROI and number of leads generated for the product.

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