

Chapter– 11

SYSTEMIZING THE INVENTORY MANAGEMENT

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ABOUT THE ORGANIZATION

Arete Powertech is pioneer company in Electrical Safety and energy efficient solutions.

Vision- *Provide Innovative cost effective Safe and energy efficient solutions.*

Mission- *Optimum Power Solutions for a safe and energized world Mantra- An electrically safe world!!!*

Copper Bonded Earthing, Copper chemical earthing and GI chemical earthing are the three different base metal type of earthing. Copper Chemical Earthing Electrodes are having corrosion resistant surface, Maintenance free life upto 40 years, Easy installation and Excellent thermal and electrical conductivity. Copper Bonded Earthing Electrode is made with steel core and a copper exterior to provide increased conductivity, better corrosion resistance, smoother, harder and more uniform surface.

GI Chemical Earthing Rod is maintenance free, superior & trustworthy as compare to conventional earthing. No need to dispense water at unvarying interlude except in grimy & filthy soil.

Chemical Earthing over Conventional Earthing:

Earthing devices play an important role in achieving maintenance free low earth resistance. Arete Powertech manufactures/supplies a range of advanced Earthing devices and is one of the prominent **Supplier and Exporter Copper Bonded Electrodes**.

Products by our **Copper Bonded Electrodes Manufacture in India** are widely appreciated and accepted for their high electrical conductivity and mechanical strength. Our electrodes comply with the present industry specifications – CPRI, UL standards. The proposed selection is vastly used in data centers, telecom, petrochemical and other industries. Arete Powertech is the best **Copper Bonded Electrodes Manufacture**. The Copper Bonded Electrodes are the most widely used maintenance free chemical earthing supplied by Arete. The Copper bonded rods are supplied in carried sizes namely 10 mm, 14 mm, 17 mm, 20 mm and 25 mm with length 1.0 meter, 1.2 meter, 1.5 meter, 2.4 meter, 3 meter and 4 meter. The Copper coating thickness is 254 micron uniform.

SERVICES PROVIDED BY THE ORGANIZATION

Arete Powertech Pvt. Ltd. is the **Best Solar Panel Street Light Manufacturer**. It works with immense dedication to bring to you reliable and effective energy solutions. Innovation is good and so is competition. This is the reason why you can rely only on Arete Powertech Pvt. Ltd. for all your solar energy devices needs. **Solar Panel Street Light in India** has a tremendous amount of untapped potential. However, this potential still needs to be tapped. Arete Powertech Pvt. Ltd. which is the Best Solar Panel Street Light Manufacturer aims to tap this potential. Products delivered by Arete Powertech Pvt. Ltd. are of lower net cost and provide much higher efficiency for the consumers.

Lightning Conductor System is a metal rod mounted on a structure. It intends to protect the structure from a lightning strike. Whenever the lightning strikes, there is always a risk of a fire being started in the structure or the structure getting electrocuted. But when Lightning Conductor Systems are installed, the lightning first strikes the attached rod due to its height and conductivity. Then it is transferred to the ground using a wire. Lightning Conductor Systems are also called finials, air terminals or strike termination devices.

Our Earthing Solutions Company brings to you satisfactory Earthing Electrodes Solutions at best prices.

WHY CHOOSE ARETE

Quality Assurance- We are a ISO certified organization which provides products and services of high standards to cater all applications.

Customized Product Range - Arete showcases a set of variations of the product platform that appeal to different market segments. We manufacture fully customized earthing and lightning arresters that are needed for Indian market requirements. We offer best in class warranty as a standard feature across all product lines. The Product is designed for upto 25 years life.

Research & Development - Our Multi-level research on electrically conductive contact with the surface of the Earth (grounding or earthing), effects relating to Soil conditions, our research on effective lightning protection codes has empowered us to continuously showcase quality products.

Expertise & Experience - We bring you our 20 + years' experience, Our uniqueness, Our individuality, and Our experience molds us to be the leader. We challenge ourselves to deliver into the deepest resources for innovation and development. Our Customer acceptance, understanding, tolerance, and compassion keeps us growing.

A couple of aspects that make Arete Powertech as your preferred business partner are:

- An ISO 9001:2015, and ISO 14001: 2015 certified company
- Our 20 + years' experience for customized cost effective solutions
- Undoubtedly India's best Solar & Earthing Solutions
- Committed to continuous improvement and customer satisfaction
- Products comply with CE and RoHS standards

Systemizing the inventory management was the project I started my work on when I joined the company. When we talk about inventory management we cover a lot of topics in it and that exactly what I was expected to do. I started my work journey by creating a database for the company for its inventory but ended it with marketing. The role was to first create database for the inventory then analyze the data stored and further use it for marketing it so as to generate more revenue for the company. The success criteria depends on

- The accuracy in maintaining the inventory levels
- The accuracy in predicting the requirements of the next order
- The accuracy in relating stocks to their respective items
- Ease of use when it comes to updating inventory levels and placing orders to vendors
- Analyzing the data in a correct order
- Storing the data as per ease
- Marketing the data to the right audience

- Increasing the online presence of the company

SCOPE

Systemizing The Inventory Management consists of 3 parts, creating the database for the inventory, analyzing the data stored in the inventory and finally marketing it to the customers to generate revenue. When we talk about the scope we see that it is one of the most in demand thing that there is a need of an inventory for running the company smoothly and need to market it to the right audience so as to increase the company profits.

Data analytics is very important with growing competition and Change is customer behaviour.

- It will help you to analyse the Inventory in different way Like which stock moved fast and which stocks is slow moving. What is the transportation and warehousing cost for each products and many other combinations.
- Which route is having maximum payload capacity and high yield this will help you determine your cost.
- Reason for reverse logistics.
- What algorithm is used for delivery to end users.
- How to optimise the route.
- Warehousing management Just In time
 - ✓ Ease of Audience Targeting-
 - ✓ Low Investment, High ROI-
 - ✓ Reaching Mobile Users-

There are more than 14 billion mobile devices worldwide, and that number is projected to grow to almost 18 billion by 2024. Because almost all smartphones have internet access, it is easier than ever for businesses to reach potential customers anywhere, anytime.

IMPLEMENTATION OF THE PROJECT

The company provides earthing solutions and it is one of the products that may vary due to seasonality, while other products may have latent trends. To mathematically model this stochastic demand, I was asked to capture the sales information of each product at least for the last 12 months analyze it and tell the trends to the company. After analyzing the data the company will get to know which market to target and how to increase their revenue. After the task was assigned I took a day to study that how my

analysis would go and what all steps do I need to take to proceed further with this work and successfully deliver them their requirements.

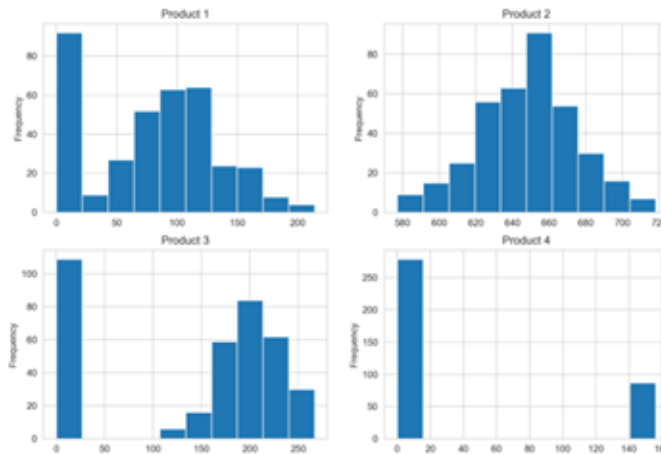
After studying I came out with a strategy that with the help of the database I have created I have compiled all the data of previous sales of the company in it. Using that data I can perform data analysis. For this I used Python and recently learned R language. While performing data analysis I performed it by dividing it into two parts. In the first part I analyzed the that out of 3 services provided which of the service is most in demand and by which type of customers, and second I analyzed that among the services provided which kind of sub service is most in demand particularly and by which type of audience.

Fig 5.21 Product listing

Product	Lead Time (days)	Volume (m ³)	Cost (\$)	Selling Price (\$)	Initial Inventory
1	9	0.57	12	16.1	2750
2	6	0.052	7	8.6	22500
3	16	0.53	6	10.2	5200
4	22	1.05	37	68	1400

For the above analysis I performed 4 types of different analysis: Descriptive Analysis Exploratory Analysis Inferential Analysis Predictive Analysis

Fig 5.22 Product listing Graph



The very first analysis performed was Descriptive Analysis which generated simple summaries about samples and measurements by using common descriptive statistics (measures of central tendency, variability, frequency, position, etc) Fig 5.23

	Product 1	Product 2	Product 3	Product 4
Mean	103.5	648.55	201.68	150.07
Standard Deviation	37.32	26.45	31.08	3.22
Expected Proportion of Days	0.76	1.00	0.70	0.24
Expected Demand (Lead Time)	705	3891.31	2265.84	784.79
Standard Deviation (Lead Time)	165.01	64.78	383.33	299.72

The next analysis performed was EDA, EDA helps to discover relationships between measures in your data, which are not evidence for the existence of the correlation, as denoted by the phrase (Correlation doesn't imply causation) but is useful for discovering new connections – forming hypothesis and drives design planning and data collection

After that 3rd analysis performed was Inferential Analysis which was done by using estimated data that value in services provided and gives a measure of uncertainty (standard deviation) in our estimation. Accuracy of inference depends heavily on sampling scheme.

Final analysis that was performed was predictive analysis in which accuracy of the predictions depends on the input variables. Accuracy also depends on the types of models; a linear model might work well in some cases, and vice-versa. Using a variable to predict another doesn't denote causal relationships.

I used R language and python to interpret all the different results while performing data analysis. It was very important to analyze the data and study the trends so as to be sure of which sector and which product to target for future. Mean, Mode, Median, standard deviation, price of the product and revenue generated by selling each product all of this was calculated to have a detailed study and see the trends to make further decisions. After analyzing the data stored in the database it was found out that Arete has provided solutions to varied industries. Majorly the company's products have been sold into the following sectors:

1. Telecom (Airtel)
2. Heavy Industries
3. Transformers
4. Electrical sub stations
5. Street light poles
6. Diesel Gensets
7. Large / individual residential
8. Commercial establishments (Faridabad, Gurgaon & Gwalior Smart City)
9. Hospitals

10. Railways
11. Military
12. IT systems
13. Real Estate (American Tower)
14. Automotive (Tata)

Another analysis that was made was that among all the products of the company, **GI Chemical Earthing Rod** was the most sell product. (Fig 5.24)

Product 1	\$87,992.00	\$110,174.00
Product 2	\$372,188.00	\$501,621.00
Product 3	\$165,959.00	\$196,235.00
Product 4	\$320,507.00	\$378,896.00
Total	\$946,646.00	\$1,186,926.00

IMPLEMENTATION OF THE PROJECT

The next task assigned to me was of **MARKETING**. As I am very keen to learn about marketing and my interest somewhat lies in Marketing so it was something even I wanted to learn. In Marketing I specialized in Digital Marketing which is my forte. In the marketing I had a proper team working in which I joined as an intern. The data I had collected and analyzed could be used here to market our services and products in a better way. So the team lead assigned me the work of running campaigns for generating leads and work on the SEO part as I had knowledge about digital marketing.

So the very first task I did was to work on **SEO**, in which I created multiple backlinks, did directory submissions, info graphic submissions, ppt submissions, image submissions and much more to organically reach our targeted audience.

Next was to do paid marketing in which various campaigns were run and strategies were prepared. Paid campaigns were decided to run on social media platforms and Google. Proper marketing strategies were prepared which included the complete budget that would be used while running the paid campaigns, audience that had to be targeted, estimated impressions that will be received and many more things that were included.

I prepared these strategies and discussed it with our marketing team and team lead and after getting it improved we started working towards it. All the necessities and things required were collected and prepared and finally we were all set to run paid campaigns. Apart from that a lot of meetings were conducted to discuss about how to proceed with the marketing of the services of the company and various strategies were

proposed to work upon, and with proper discussions a work plan was designed which had to be executed.

SEARCH ENGINE OPTIMIZATION

My work was to handle the online presence of the company for which I performed various activities of SEO and worked on preparing strategies for paid campaigns and executing it. Different SEO activities were performed for the ranking of website and services that had to be targeted. These SEO Activities are:

I performed both On page and Off page SEO Activities and made sure to get the website and videos ranked at specific keywords focused by the company.

Goal is to Increases the search visibility of the Site Pages in digital space by making the site friendlier for the target user.

1. Title Tag, Meta Tag, Image Tag Optimization
2. Canonical Issue
3. URL Structure
4. Site Analysis
5. Sitemap.htm/ Sitemap.xml
6. Robots.txt
7. Java Script and Style Sheet Optimization
8. Internal and External Linking
9. Webpage Code Optimization
10. Broken Link Checker
11. 301,302,403,404 Error Pages Check
12. Content Duplicity
13. Google Analytics and Google Webmaster Configuration

SEO off Page Activities Performed to get the website rank to generate organic leads and generate revenue. Off page SEO refers to techniques that can be used to improve the Indexing & position of a web site in the search engine results page (SERPs) by link building beyond website design for the purpose of ranking a website higher in the search results. Building the many links on other sites can get you good ranking in searches as compare to competitors. If your link is available on other site it is understood as good source. Off page SEO is a technique that is used to improve the position of a website in the search engine results page. Many people united off-page SEO with link building but it is not only that. Usually, off Page SEO has to do with promotion

methods– besides website design –for the purpose of ranking a website higher in the search results.

1. Directory Submission- There are many directories available with Do follow links where we can submit the links with relevant details of business-
2. Info graphic Submissions
3. Blog Submission- Linking to other pages or blog posts on your website helps search engines crawl your website and create a more accurate sitemap. It also helps your audience discover more of your content and get to know you as a trustworthy, credible source of information, there are important blogging Sites are offered from WordPress, BlogSpot (Blogger.com), bloggerspassion, Indianbloggers.org, bloggersideas. Blogger outreach programs- Seeking exposure for a product or service, leverages influencers who have established a substantial following, asking them to write about it in exchange for free access to the product or service.
4. Article Submission- Articles & bookmarking of articles helps getting mentions & links.
5. Social Book Marketing- If we bookmark pages on various social platforms it gives quality backlink in the eyes of search engines. And we all know that the quality backlinks helps us to increase blog traffic and Google Page Rank. There are many portals like Quora, Stumble upon (now known as Mix), Delicious, Folkd.com., Reddit.com, Bizsugar.com, Slashdot.org, Scoop.it, Fark.com and Newsvine provide quality links.
6. Guest post / Guest Blog
7. PPT+PDF Submission
8. Classified Submission
9. Forum Posting
10. Deep linking Strategy
11. Comment Posting

Above listed method were used to build as many possible backlinks to get site recognized and spread it to a larger audience and target the sectors who may need earthing and then pitch them to purchase our products.

SEARCH ENGINE MARKETING AND GOOGLE ADS-

Strategies for paid ads were built for all social media platforms like Facebook, Twitter, LinkedIn and Instagram. Apart from that running ad on Google was also main

topic of discussion where a lot of ideas were proposed for that as well. A full budget was prepared that may be involved while running Google Ads. (Fig 5.31)



Since Google is the most used search engine, using Google Ads will get you the most impressions, so take into consideration the following factors when creating your PPC campaign through GoogleAds: Ensure your keywords are relevant, popular, and likely to be searched Have a high-quality landing page that looks appealing and has a clear message Better quality scores get more ad clicks at lower costsSo while working on marketing apart from SEO I also performed SEM for which a lot of PPT’S were made to make clear of each and every point of marketing strategy that had to be used while running the paid campaigns. I prepared each and every strategy that I thought could help the company generate leads and displayed it to them in the meeting and finally after getting the approval ads were started and now ads are being monitored to see if they are generating leads and giving results.(Fig 5.33)



CONCLUSION

Talking about my work experience it was totally a different experience for me, I was exposed to a lot many things about which I was unaware. This internship was also work from office so physically going to the office and doing the work with the team members was totally a new experience for me. I learned a lot about how to work

professionally, how the industry works and lot more into it. Apart from that having discussions with experienced experts gave me a lot more things to learn.

Their advices, their way of working made me learn a lot more. Talking about skills I improved my coding and learnt php much more while developing the database and also refined myself while doing the data analysis work assigned. I gained a lot of knowledge about MySQL and a lot of learning was done while coding.

Doing marketing was altogether a new experience and fun one too since I learnt a lot about that field and gained a wholesome experience. In all I learned a lot from this 4 months internship, apart from getting to know about technical skills I gained experience of how to work in a professional field how to present yourself and your work in meetings and how to contribute in leading the company to new heights every day.

Working under the Senior Authorities was also a very knowledgeable experience wherein I learnt a lot of things about how to work and how to manage things out. Working from office also exposed me to the environment of working to be physically present in meetings giving presentations and representing yourself was also a major part of my learning. Learning lots of technical skills from working in these four months has made me enthusiast about a lot of different things in this world of technology. I have learned how to work in industry, how to deal with people and how to manage up with the work provided. I gained a whole lot of experience in professional world along with learning technical skills and getting an experience which is beyond defining. My experience was definitely really nice insightful one and I enjoyed my internship a lot.

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- *Company Meetings*
- *Company Documents*
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