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Summer Internship Project

Final Report

Astorianz Industries Pvt. Ltd.



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Part A

EXECUTIVE SUMMARY

The report includes a chronology of duties completed while interning at Astorianz Industries Pvt. Ltd. as a marketing intern. Interns with the organization have a one-of-a-kind opportunity to study and grow in a variety of areas and activities. Even in the midst of the pandemic, Mr. Vivek Bagaria, Director Sales Operations, organized weekly training and feedback sessions online to keep interns up to date and help them perform better. One month into the internship, I've helped with Market Research, Digital Strategy Crafting, Social Media Analytics, Research Project, LinkedIn Prospecting, and Search Engine Optimization. These domains were also my major emphasis until the project came to a conclusion. Working with Astorianz has allowed me to study social media from an entirely different perspective than I would have had otherwise. My job profile's main aim is to demonstrate how diverse platforms and their capabilities may be shaped to fit our content goals.

Part B

Company Profile:

Industries: Consumer Electronics

Company size: 200-300 employees

Headquarters: New Delhi, Delhi

Type: Privately Held

Founded: 2019

Introduction:

In the escalating macrocosm of electronic evolution, Astorianz is the leading electronic and consumer goods company with the vision to enable our country's denizens to aspire a better lifestyle. The fast digital revolution has made us versatile and passionate about expanding our horizons from basic electronic gadgets to smart ones. Numerous prêt and luxury necessities keep emerging in electronic scenario so we are here to explore and expand dynamically. Our key philosophy is to focus on cost-rationalization and quality optimization with earnest diligence.

Vision

ASTU, we astorianz's aim is to make Indians proud of the Make - In - India label by innovating designs and manufacturing televisions, electronic devices and commodities for new-age - consumer who apt for the best quality, advanced and latest features and a luxury experience.

Mission

We want to benefit society by giving unmatched experience of our products to the mass of the nation irrespective of the sect of people and the place they live -in. We strive to engender sustained surpluses, excel within the framework of law and take pleasure in accomplishments in ethical virtues.

INDUSTRY ANALYSIS:

Electronic (analogue or digital) equipment intended for everyday use, often in private homes, is known as consumer electronics or home electronics. Devices utilized for amusement,

communication, and amusement are referred to as consumer electronics. Because many things are contained in black or dark casings, they are commonly referred to as black items. This word is used to separate them from "white goods," such as washing machines and refrigerators, which are used for household activities but are increasingly considered black goods, with some of these being connected to the Internet. Producers and dealers refer to them as brown goods in British English. This difference is no longer made in huge big box consumer electronics stores, which sell both entertainment, communication, and home office gadgets, as well as kitchen appliances like refrigerators, in the 2010s. In the early twentieth century, radio transmission introduced the first important consumer product, the broadcast receiver. Telephones, televisions, and calculators were among the later goods, followed by audio and video recorders and players, gaming consoles, personal computers, and MP3 players. GPS, automobile electronics (car stereos), video game consoles, electronic musical instruments (e.g., synthesizer keyboards), karaoke machines, digital cameras, and video players were all popular in consumer electronics retailers in the 2010s (VCRs in the 1980s and 1990s, followed by DVD players and Blu-ray players). Smart appliances, digital cameras, camcorders, cell phones, and smartphones are also available for purchase in stores. Virtual reality head-mounted display goggles, smart home gadgets that connect household items to the Internet, and wearable technology are just a few of the more recent products that have been sold.

Most consumer electronics in the 2010s were based on digital technologies, and the computer industry largely merged with it in what is now known as the consumerization of information technology. Office and infant furnishings are now being sold in certain consumer electronics retailers. Consumer electronics stores can be real retail stores, internet retailers, or a mixture of the two. By 2020, annual sales of consumer electronics are estimated to surpass \$ 2 .9 trillion. It's a part of the larger electronics sector. The semiconductor sector, in turn, is the driving force behind the electronics sector. The MOSFET (metal-oxide-silicon field-effect transistor, or MOS transistor) is the basic building block of modern electronics, and its scaling and shrinking has been a major contributor in the rapid exponential expansion of electronic technology since the 1960s.

Work from Home During COVID-19, the trend results in a high adoption of computing products. The pandemic first appeared in China, prompting the country's government to impose stringent lockdown measures. China is a significant producer of electrical components and raw materials. As a result, the outbreak of the pandemic in China had a substantial impact on the electrical device supply chain.

Electronics sales have been badly damaged by social distancing and stay-at-home orders all over the world. Due to retail store closures, Sony's Electronic Products and Solutions (EP&S) segment's market revenue fell from 977.4 billion yen in the first half of fiscal year (FY) 2019 to 836.5 billion yen in the first half of fiscal year (FY) 2020.

The rise in demand for computing equipment and peripherals has been attributed to the work-from-home trend. According to LG Electronics' Q2 2020 data, the percentage share of displays in total sales climbed to 23% in Q2 2020 from 17% in Q1 2020, while that of notebooks and tablets grew to 29% in Q2 2020 from 20% in Q1 2020. Factors such as relaxing of lockdown norms, reopening of retail stores, and the continued trend of online selling will accelerate the consumer electronics industry growth in the near future.

Products and Services

"Astu" is a Consumer Electronics Brand, launched by ©Astorianz Industries Pvt. Ltd., Operations based at Noida, UP. "Astu" makes Android Smart, Internet Enabled, UHD, Full HD and HD Ready LED TVs. "Astu", a young brand in LED TVs, Party Speakers but an old hand at end-to-end manufacturing in Consumer Electronics & Home Appliances like Refrigerators, Washing Machines, Water Purifiers, Air Purifiers, etc. "Astu" uses Components / Technology sourced from the top suppliers to make a wide range of LED TVs at its comprehensive facilities in Delhi NCR. Their commitment to quality in each and every unit that bears their name, and the pride of being thoroughly Indian Manufacturing Company.

PROJECT PROPOSAL

- **WEEK 1 & 2: SOCIAL MEDIA PROSPECTING**

Assuming the task of Outreach to find and engage with experts on social media sites such as LinkedIn, Instagram, and others. Create content to reach out to experts across channels, bearing in mind the motivations that each channel holds for them.

- **WEEK 3: SOCIAL MEDIA MARKETING**

Learning how to build an effective social media marketing strategy and deploy it. Learning how to make entertaining publicity materials such as teaser campaigns, news jacks, infographics, memes, and more. Learning all of the dos and don'ts that a marketer needs to

remember.

- **WEEK 4: SEARCH ENGINES OPTIMIZATION**

Learn how to create an SEO content strategy, connection building strategy, and keyword strategy. Use these methods to optimize the experts you've curated on our website for SEO. Use Google Analytics to determine which keywords are doing well and which need additional attention.

- **WEEK 5: EMAIL MARKETING**

We'll learn how to create a human and helpful email marketing approach that creates confidence with your contacts, from contact control and segmentation to email deliverability and reviewing your email sends. Create a campaign to turn opportunities into customers.

- **WEEKS 6 & 7: USER ACQUISITION AND DESIGN CONSIDERATION**

Come up with user retention techniques for the careers you've been given. To define the customer base, think strategically. Contact them, learn about their needs, and assist the team in improving the services for a better user experience.

- **WEEK 8: APPLICATION AUDIT**

Performing a detailed review of the programme and report any flaws or recommendations. Proofread site data to make it more usable. Share the ideas with the team on how to change it and get problems resolved. Make required changes to the whole programme based on customer feedback.

Project Allocation and Division:

At Astorianz, an intern gets an opportunity to explore and contribute at multiple projects across various domains. This helps one to be acquainted with the entire organization's working and the process flow.

Till date, I have been assigned projects through domains where I could show some expertise and also obtain the bandwidth to grow my skills.

Since we have signed an NDA with the company, we are not allowed to disclose any clients or specific projects in the internship reports.

Below are the projects specified based on the domain I am currently a part of:

1. Market Research

In order to seek prospective clients in the company, it is crucial to be updated with the latest trends and marketing techniques of other brands and competitors. To do so, we did an in-depth analysis and research of ongoing trends on digital media platforms like Instagram, Facebook, Twitter etc.

Our research mainly involved us to consult with research papers, social media reports, social media handles and analytics. We even read through news articles that lauded the marketing strategies used by other brands and their agencies. This gave us immense knowledge on assessing and allocating different platforms for the specific content.

Due to the Covid-19 pandemic, we even analyzed how differently other brands did in terms of marketing amidst the lockdown. This provided us with some great content ideas and a different perspective to how we view these platforms.

2. Social Media Marketing & Analytics

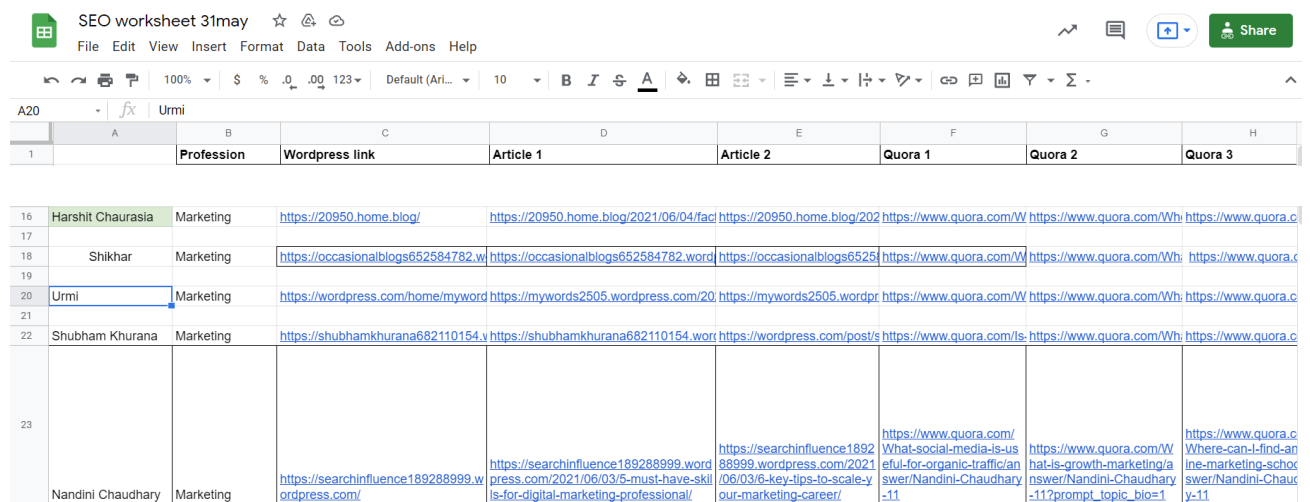
We were divided into smaller groups and given specific tasks to work on after doing extensive market research. For the allotted project topic, we were to develop marketing strategies and campaigns that could be deployed both during and after the pandemic lockdown. To streamline the material, we took a bottom-up strategy, noting the product/use service's cases first and narrowing down our ideas based on feasibility and implementation. We did everything we could to combine concepts with the most cutting-edge messaging tactics and communication platforms. We created pitch decks, which our mentor examined before sending to the customer for approval. A monthly content calendar was produced as part of the social media management, and it included content pieces for topical days, content copy, and media platform. In addition, I am responsible for managing the company's social media presence in order to grow the number of users linked to the firm and, as a result, the firm's revenue. I need to work on content generation, content strategy, and content calendars, as well as engage in digital marketing activities for the brand as a whole and uncover untapped opportunities for the company in the form of a long-term online presence.

3. Search Engine Optimization

- Learning basic SEO strategies (keyword research, link acquisition, and on-site optimization).
- Understanding Google Analytics.
- Improving meta data across older articles and services.
- Various design tasks.
- Assist in the daily tasks across our social accounts (namely Instagram, Facebook, Twitter)
- Competitive analysis for other popular brands in our sector.

The process of increasing the quality and quantity of search engine traffic to a website or a web page is known as search engine optimization (SEO). Rather than paid or direct traffic, SEO focuses on unpaid traffic (also known as "natural" or "organic" results). We were taught how to create SEO-optimized content during the first week of our internship.

We did the following:



	A	B	C	D	E	F	G	H
1		Profession	Wordpress link	Article 1	Article 2	Quora 1	Quora 2	Quora 3
16	Harshit Chaurasia	Marketing	https://20950.home.blog/	https://20950.home.blog/2021/06/04/fac	https://20950.home.blog/2021/06/04/fac	https://www.quora.com/W	https://www.quora.com/W	https://www.quora.com/W
17								
18	Shikhar	Marketing	https://occasionalblogs652584782.w	https://occasionalblogs652584782.word	https://occasionalblogs6525	https://www.quora.com/W	https://www.quora.com/W	https://www.quora.com/W
19								
20	Urmi	Marketing	https://wordpress.com/home/myword	https://mywords2505.wordpress.com/20	https://mywords2505.wordpr	https://www.quora.com/W	https://www.quora.com/W	https://www.quora.com/W
21								
22	Shubham Khurana	Marketing	https://shubhamkhurana682110154.v	https://shubhamkhurana682110154.worr	https://wordpress.com/post/5	https://www.quora.com/	https://www.quora.com/W	https://www.quora.c
23								
	Nandini Chaudhary	Marketing	https://searchinfluence189288999.w	https://searchinfluence189288999.word	https://searchinfluence1892	https://www.quora.com/W	https://www.quora.com/W	https://www.quora.c

Keyword Research: You may use a keyword research tool to find out the average monthly search volume and comparable keywords for those phrases. We were able to identify which versions of your keywords are the most popular among researchers throughout the discovery phase. Once you've entered your seed keywords into a keyword research tool, you'll start to notice more keywords, popular queries, and content ideas that you would have overlooked otherwise.

Keyword research provided us with the specific search data that can help you answer questions like:

- What are people searching for?
- How many people are searching for it?

- In what format do they want that information?

We learned about the tools and strategies for uncovering that information, as well as tactics for avoiding keyword research blunders and creating strong content. You'll discover a whole new world of strategic SEO once you figure out how your target audience searches for your content.

Making SEO-Friendly Content: We generated material on WordPress and Quora as interns. The goal of the content marketing strategy was to build backlinks and produce high-quality material.

Keyword research: Keyword research is critical for on-page SEO. By producing quality material about a topic, you're likely to include keywords without even recognizing it. In order to identify related keywords pertinent to our blog article, we employed a number of tools and approaches that you may not have considered. Both the Google AdWords Keyword Tool and semrush.com are excellent resources for finding keywords relating to our topic.

Keywords should be used throughout your article. We needed to employ a couple of important, relevant keywords where they would have the maximum impact for people and search engine crawlers scanning your material once we had identified them. Try to include them in the following places: Title, Headings and subheadings, Introductory sentence, concluding paragraph, Anchor text (text you hyperlink to other related pages on your site) & Title tags and meta descriptions

Keyword stuffing is when you pack your text with so many keywords that it becomes difficult to read. This will not only annoy your blog readers, but it will also result in a Google penalty. A few keywords put carefully would suffice.

Optimize your images: Include keywords in the file name and a concise, keyword-rich description of the shot in the alternative text field whenever you submit a photo to your blog.

Allow people to subscribe to your blog in the following ways: Include conspicuous RSS or Feed Subscription Buttons and, if feasible, allow visitors to subscribe to your postings by email. This allows your blog readers to receive quick notifications of new articles without having to check your site for fresh information on a regular basis.

To increase the reach of your blog content, use social media: You may be using Facebook, Twitter, Google+, or other social media sites to engage with new and current consumers as a small company. Why not use these sites to promote your blog material and gain even more web exposure? Free applications like Hootsuite make it simple to share links to your most recent blog article across all of your social media accounts with just a few clicks. You may even plan ahead and schedule your articles!

Learnings-

SEO analyses how search engine's function, the computer-programmed algorithms that govern search engine activity, as a marketing approach. What people look for, what search phrases or keywords they use in search engines, and which search engines their target audience prefers. When a website ranks higher on the search engine results page, it will receive more visits from the search engine (SERP). These visitors might then become clients.

4. LinkedIn Prospecting

LinkedIn is a gold mine for sales marketing and lead generation initiatives. However, the platform is so broad that deciding where to begin may be challenging. LinkedIn is used on a daily basis by 40 percent of monthly users. 91 percent of marketing executives say LinkedIn is the best place to look for outstanding content. LinkedIn is a good source of lead generation for 79 percent of B2B marketers. Your target demographic will be specified and extended, and LinkedIn will search for them using the appropriate filter, as well as develop an appealing template. Then there's LinkedIn automation, which may help you maximize your LinkedIn efforts.

We were supposed to contact potential dealers & clients using LinkedIn. Cold prospecting on LinkedIn is just the outreach counterpart of cold calling.

In order to reach the target audience, the following actions were carried out:

- Finding your target audience by using search criteria.
- Campaigns of cold outreach and social selling.
- Using InMail to send messages.
- Sending connection requests and follow-ups that are highly customized.
- Becoming a member of and contributing to relevant LinkedIn groups.
- Automated outreach on LinkedIn

What should be considered while LinkedIn Prospecting:

It implies you make contact with someone to offer your services, goods, knowledge, or anything else you have to offer. As a result, LinkedIn prospecting might have a bad reputation. If you sell a cold pitch to everyone and in the initial LinkedIn message, no one will want to work with you. This is similar to going to a networking event and immediately discussing your services with everybody you meet. Below, we'll go through the top prospecting methods in further detail.

The usual prospecting procedure, on the other hand, goes somewhat like this:

Creating buyer personas - We needed to find the right marketing professional who would be interested in joining the expert group. Regardless of your platform, the first step was to create a marketing campaign. Take some time to think about your people and their grief. Only a filtered search for your target demographic up to a specific geographic place is available today. However, reach is crucial, and most individuals get it wrong. It takes a long time, just like gold prospecting.

Identifying Leads- LinkedIn has a user base of over 675 million people. As a result, identifying your target audience can be difficult. LinkedIn filters were used! The standard LinkedIn free account filters, as well as the more advanced Sales Navigator filters.

Creating a campaign: We built a campaign to invite potential dealers to interact with the brand and increase visibility. Finally, take into account you're marketing. What is the goal of your marketing campaign? What kind of messaging (templates) will you use to make your point? How soon do you start sending follow-up emails? Of course, it all relies on your campaign and your team. LinkedIn happens to be the most popular platform for B2B marketers to share information, network, and create leads.

You can reap the many **benefits of LinkedIn sales prospecting**. we found a great reach using LinkedIn such as:

- Excellent and warm leads.
- Using LinkedIn automation to write every coverage and follow-up message, which would otherwise be done manually, can save you a lot of time.
- Increased social interaction and reach
- Be able to position oneself as a think-tank leader in your field.
- Brand identity, as well as a larger audience and more visibility.

5. Content Creation

Content production is the provision of information to any media and, in particular, digital media in specific situations for the public. Content is "anything that is meant for self-expression, distribution, marketing and/or publication through some medium, such as speaking, writing and various arts. Typical forms of content generation include site maintenance and upgrading, tweeting, blog posts, cinematography, videography, internet discussion, social networking accounts keeping and digital media editing and what not. Content creation is the ultimate inbound marketing practice. When you create content, you're providing free and useful information to your audience, attracting potential customers to your website, and retaining existing customers through quality engagement.

We can also generate some major ROI for the company, as these content marketing stats demonstrate:

- Content marketing brings in 3X as many leads as traditional marketing and costs 62% less.
- SMBs that use content marketing get 126% more leads than those that don't.
- 61% of online purchases are the direct result of a customer reading a blog.
- Companies that publish 16+ blog posts per month get 3.5X more traffic than those that post four or fewer posts per month.

We were given tasks to create contents for different LinkedIn & Twitter social media platforms. Content was created in the form of articles, poster & ad jacks. All the content creation was done in accordance with the company's vision and mission and in order to promote and create its brand identity.

1. WordPress blog

Creating and launching an appealing and informative blog is not enough. For better results, you need to get serious about its promotion. Marketing has always been a great way to drive the targeted audience towards your brand or product. You can convey your organization's message to a large number of people by making the use of effective marketing techniques.

But, due to the stiff competition, it's now even more grueling making your blog a success. Also, the techniques for promoting a blog never remain the same due to the ever-changing panda and penguin updates by Google.

That's I've tried & tested these ways in my mind while writing those blogs that can effectively promote WordPress blog:

1. Creating quality, engaging content

The first step you need to do is to create quality, informative and engaging content for your blogs. You need to understand that many people have great experience in the same niche as you. So, make sure that you write a blog post that can solve the problems of these readers and give them a rich reading experience. Plus, it should stand up to the expectations of your target audience. By providing them their most desired content, you can efficiently improve the web presence of your blog.

2. Installing the most suitable theme

The overall look and feel of a blog can make or break the visibility of your site. Web design is a vital aspect that leaves a first and the last impression on visitor's mind. Therefore, you should search for a theme that can beautifully showcase the purpose of your blog to your visitors.

3. Social media marketing

Market your blog posts on social media platforms, including Facebook, Google+, Twitter, Instagram, StumbleUpon etc. to drive more web traffic. If you want a successful blog, you need to post or share your content to relevant groups. You can also add social sharing icons on each of your blog post to allow your readers to share your content on their own social media accounts.

4. Customizing permalinks

You can optimize your content by ensuring the URLs of your blog posts contain relevant keywords. WordPress can generate a permalink for you automatically, but before you hit publish make sure that it's keyword-rich and readable. Try to optimize the permalink in a way that it reflects your content instantly to visitors.

5. Making use of YouTube videos

YouTube is an ideal social media platform where you can convey your audio-visual message to your potential visitors in an engaging way. Although, it is a popular marketing technique, you need to be very creative from your side.

You can begin with a video that is simple, which can help you get the hang of crafting future videos for your blog. Thereafter, you can do something more creative and innovative.

6. Email marketing

Email marketing is one of the most prominent ways that can help you promote your blog. You just need to create an email list and keep on adding new subscribers to generate quality leads. The subscribers in your email lists will hopefully help you share and promote your content across different web platforms. So, you should build a massive email list in order to get more web traffic to your address.

7. Updating blog posts regularly

Make sure that you update your blog on a regular basis. Creating regular content gives your readers something to come back for and lets Google know that you're serious about what you're doing.

2. Marketing Posters Campaign

Marketing posters can reach new buyers or promote your company's new products and services. This is a smart way to get additional exposure for your company's brand. Posters are very beneficial because you can put them in many different places. There are many different poster designs to choose from, but not all of them will favorably influence potential buyers. However, you can create an appealing poster design without much complication. One of the things I ensured to get everyone's attention is that my designs are alluring, but simple. Didn't use too

many fonts or colors in one design. Made sure that your company's colors and logo are captured within my poster design, but didn't overdo it. Too much could take away from the company's message. Crafted a headline that will get the attention of anyone who walks by your poster. Lastly, mentioned company contact information at the lowermost section of the poster. Most people read from the top to the bottom, so prominently displaying your contact information here will tell people how they can easily get in touch with you at the perfect time. This is, after all, the whole point of creating an effective marketing campaign. A poster campaign is an exceptional way to expose your company to the world. The trick is to find new and improved methods for branding your company via mesmerizing graphic designs and a strong strategy. All in all, the best way to ensure that your poster campaign is a successful one is to consistently design appealing posters, perform market research, and track the results.

3. AdJacks:

Hijack Ad campaigns of the company's brand and illustrate why it inspired you while you credit the marketing brain.

THINGS I DID:

- Picked 25 Ad campaigns that went viral and whose story line was impactful
- Analyzed the campaign
- Shared why I liked it
- Credited the marketing brain behind it and tagged the expert
- Posted it on my LinkedIn and Twitter

6. MEME Marketing

Meme marketing is one of the most powerful social media marketing strategies out there today. With social media continually on the rise, meme marketing has transformed hundreds of brands social media market strategies. No matter what social media you use, you can't escape the millions of memes that are posted daily. Known for their funny and unique humor, these memes that started off as inside and funny jokes, are now being used by brands to boost their social media following. In fact, memes are so popular that there are even plenty of social media profiles that are dedicated to just posting funny memes to their followers. With the ability to go viral and

increase brand exposure, these memes are now being utilized by many brands as their core social media strategy. Although, not every brand that uses them has been successful.

To show the power of meme marketing and we capitalized on this marketing strategy.

“Did you know that millennials spend over 200 minutes online every day? Memes are so prolific that there’s a good chance millennials and Gen Zers are laughing at and sharing memes while online. This gives brands plenty of opportunities to engage with their audience.”

Meme marketing might seem like a laughable matter — and it is — though the return on investment is no joke. Whereas an ad campaign or a tv commercial could run you anywhere from several hundreds to hundreds of thousands of dollars, meme marketing is free (if you do it yourself) and can generate even more engagement.

Still, there is an inherent danger to meme marketing: as with all forms of marketing, making mistakes makes your brand look disconnected from the world, and the internet of all places is known for showing no mercy.

Getting memes wrong can be as dangerous to a brand’s reputation as getting them right is uplifting—despite their low production and distribution costs, they should still be treated with the creativity, focus and care that you would put into any other ad.

8. Research Project:

The project was titled as “A review on the complementarity of renewable energy sources: Concept, application and future of Solar Projects”. The prime focus of the project is how unlike fossil fuels and nuclear power plants, solar energy has one of the lowest energy-consumption footprints, which makes it a key for conserving our resources. And how it is important to go for reliable, cost effective and everlasting renewable energy source for energy demand arising in future. The areas of my research revolved around the following topics:

Scope of Solar Power in India:

Solar power is a rapidly growing industry in India. As of November 30, 2020, the country's solar installed capacity was 36.9 GW.

The Indian government set a target of 20 gigawatts of power for 2022, which was met four years ahead of time. The goal was increased in 2015 to 100 GW of solar energy by 2022 (Including 40 GW from rooftop solar), with a target budget of \$100 billion. Nearly 42 solar parks have been developed in India to provide land to solar plant developers. Rooftop solar power generates 2.1 GW, with 70% of it being used for manufacturing or commercial purposes. India is developing off-grid solar power for local energy needs in addition to its large-scale grid-connected solar photovoltaic (PV) initiative. Solar devices are rapidly being used to satisfy rural needs and by the

end of 2015, the country had sold just under one million solar lanterns, reducing the need for kerosene. Just over 1.4 million solar cookers were deployed in India that year, with 118,700 solar home lighting systems and 46,655 solar street lighting systems installed as part of a national initiative.

India proposed the International Solar Alliance (ISA) as a founding member, and it is headquartered in India. To tap ample solar power on a global scale, India has proposed the concepts of "One Sun, One World, One Grid" and "World Solar Bank."

The goal of 20 GW capability was supposed to be reached by 2022, according to the Indian government's initial plans. India accomplished the reported goal four years ahead of time thanks to its abilities. Furthermore, the country has built over 42 solar parks to ensure that promoters of solar plants have access to large tracts of land. Solar energy alone accounts for over 38 percent of all renewable energy installed capacity, which has recently increased by 2% over the last year.

Solar Power in India Today:

In addition to its large-scale grid-connected solar photovoltaic program, the nation has been developing off-grid solar power for local energy. Solar devices and services have made their way into meeting critical needs in rural areas and by the end of 2015, the country had sold over one million solar lanterns, overcoming the country's long-term reliance on the non-renewable resource kerosene. About 118,700 solar home lighting systems were installed in 2015, lighting thousands of homes around the world. Nearly 46,655 solar street lighting installations were installed as part of a nationwide effort at the time.

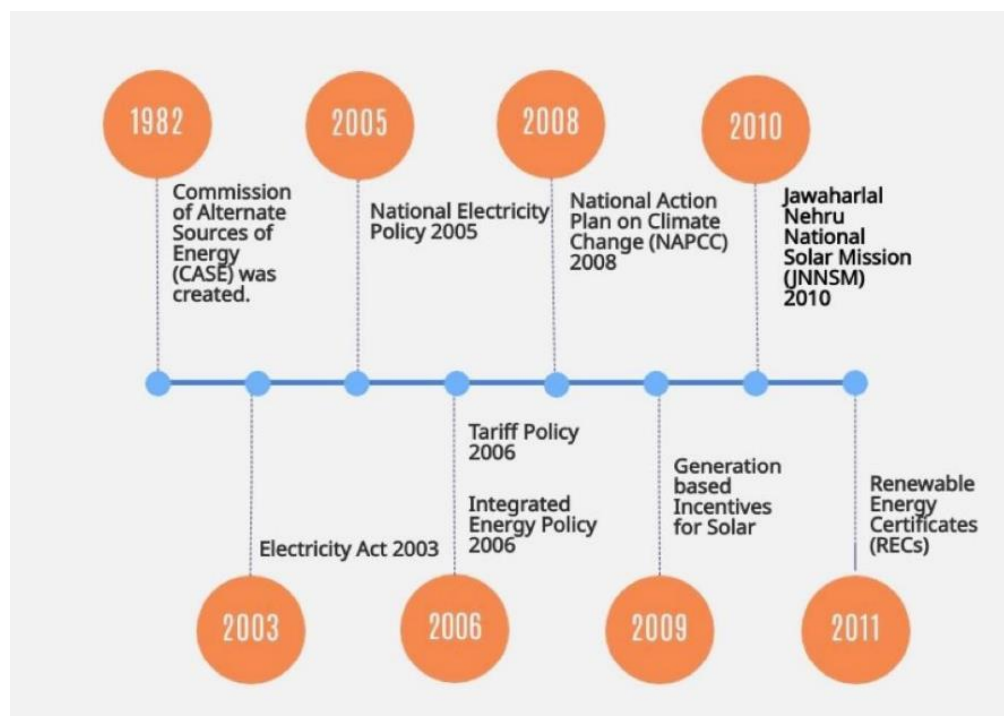
Solar Power India Future:

In India, there are over 300 bright and sunny days per year, with an annual solar energy occurrence on its land area of about 5000 trillion kilowatt-hours per year. In India, the available solar energy in a single year exceeds the total capacity of all fossil fuel energy sources. In India, the average daily solar-power-plant generation capacity is over 0.20kWh per m² of land area considered. With today's commercially available equipment, it's approximately equal to 1400-1800 total capacity operating hours a year. With non-renewable capital unable to keep up with the population, solar power is the quickest and most cost-effective alternative we have.

Solar Policies in India:

Policy infrastructure in the renewable energy sector in India took shape with the foundation of the Commission of Alternate Sources of Energy (CASE) in 1981, in the Department of Science & Technology. It became an independent Department of New Energy Sources (DNES) in 1982 and a

full-fledged Ministry in 1992. The Ministry of New and Renewable Energy (MNRE) is the nodal Ministry of the Government of India for all matters relating to new and renewable energy. The broad aim of the ministry is to develop and deploy new and renewable energy for supplementing the energy requirements of the country. They provide direct and indirect tax benefits such as sales tax, excise duty exemptions, and custom duty exemptions.



1. National Solar Mission

Jawaharlal Nehru National Solar Mission (JNNSM) 2010, also known as the Solar Mission, is a part of India's National Action Plan on Climate Change (NAPCC). There are three phases to the mission: Phase I (2010–12), II (2013–17), and III (2017–22). Under Phase I, the Rooftop PV and Small-Scale Generation Programme (RPSSGP) aims to encourage the development of rooftop and ground-mounted solar systems. The Indian government revised the Solar Mission in 2014. It targets for 100 GW installed capacity of solar electricity by 2022. To reach this ambitious target, the government announced several policies to promote solar energy.

2. Electricity Act, 2003

The act provides a framework for the overall growth of the electricity sector in India. It gives provisions for preferential tariff and quotas for opting for renewable energy. Mandatory procurement of renewable energy for distribution licensees and facilitation of grid connectivity were incorporated.

3. National Electricity Policy, 2005

The policy allows preferential tariffs for power produced from renewable energy sources. It aimed to provide access to electricity to all and increase the minimum per capita availability to 1000 kWh per year by 2012.

4. Tariff Policy, 2006

It is the mechanism of the Renewable Purchase Obligation (RPO) to fix a minimum percentage of the purchase of energy consumption by the states from renewable energy sources. It also provides a special tariff for solar energy among other renewable energies.

5. Integrated Energy Policy, 2006

This integrated policy recommended a particular focus on renewable energy development and set specific targets for capacity addition.

6. National Action Plan on Climate Change (NAPCC), 2008

The Government of India initiated mission mode action plans for sustainable growth under NAPCC to address climate change. Its first mission was to intensify solar energy development. It not only set the RPO at 5% of the total grid's purchase but also a decade long 1% year-on year RPO growth.

7. Generation Based Incentives (GBIs) for Solar

The introduction of GBI was for small grid solar projects below 33 kW. GBIs are for bridging the gap between a base tariff of INR 5.5 and the tariff put in place by the Central Electricity Regulatory Commission (CERC) as a fiscal incentive.

8. Jawaharlal Nehru National Solar Mission (JNNSM), 2010

Also known as National Solar Mission, JNNSM is one of the eight fundamentals National Mission's which comprise India's NAPCC. The mission targets 20,000 MW of grid-connected and off-grid solar power capacity by 2022 with 2000 MW as a share of off-grid capacity.

9. Renewable Energy Certificates (RECs), 2011

RECs are a market-based mechanism. It was introduced to enhance renewable energy capacity. It levels the inter-state divergences of renewable energy generation and the requirement of the obligated entities to meet their RPOs with a differentiated price for solar and non-solar.

10. Clean Energy Cess, 2010

The Clean Energy Cess was introduced to levy the amount of INR 50 to every tonne coal used in the country. The cess created the National Clean Energy Fund (NCEF) that aims to fund clean energy projects. It provides up to 40 per cent of the total costs of Renewable energy projects through the Indian Renewable Energy Development Agency (IREDA). The cess has now grown to INR 400 per tonne of coal used.

11. Joint Liability Group (JLG) for off-grid installations

By synthesizing business and social potential, a small group of 4–10 local entrepreneurs as JLG help avail loans for non-farming activities that may be applicable for micro-grid installations.

12. Corporate Social Responsibility (CSR)

CSR was introduced to encourage the private sector participation in the national growth and for meeting social goals. The CSR funds are from by the top 500 companies as 2 per cent of their profits towards off-grid solutions.

Techniques that can help solar products close deals more effectively and maximize marketing ROI.

1. Sell Solar Panels and Power on Value, Not on Price

Competition is fierce in the solar industry; in some areas, it seems like a new solar installer enters the market every other week. It might be tempting to compete on price, but competitions tend to escalate. Before too long, you'll have raced your competitors to the bottom. Solar prices are already falling; there's no need to hasten their descent. Instead of trying to battle your competitors on price, concentrate on building value into your services. Let customers know that while your company may not be the cheapest, all of your installers are trained and certified. Show them how you'll take care of them after the installation by monitoring their solar arrays and making yourself available to answer questions.

Think of it this way: most consumers don't necessarily want the cheapest option. What they want is a great value. Give them that, and they'll choose you over the competition nearly every time.

2. Get Some Smaller "Yesses" Before You Go for the Big "Yes"

During the sales process, there will be plenty of opportunities to establish common ground. Yes, climate change is a serious issue. Yes, saving money is great. Yes, solar adds value to a home. Yes, fossil fuel prices can only increase over the long term.

Your sales team should make an effort to get prospective solar buyers in the habit of agreeing with them. When the time comes to pop the big question, they'll already be nodding their heads.

3. Create a Sense of Urgency to Make Way for Solar

For some consumers, going solar already has a sense of urgency. After all, what could be more urgent than the looming threat of climate change? But even the staunchest green consumers can be encouraged with a little extra incentive to take immediate action.

For example, you might authorize your sales team to offer a small, limited-time discount. During the fall and winter months, the sense of urgency might come from the fact that solar installation lead times are generally shorter. Who doesn't like going to the front of the line?

Tax incentives expire and net metering policies change. You know that there's never been a better time to go solar. If you think about it, you can surely find a way to subtly build urgency into your pitch, regardless of timing.

4. Collaborate on Solar System Design

These days, solar installers have some pretty compelling system design tools at their disposal. When customers participate in designing their new solar arrays, they feel more invested in going solar. Plus, they trust that the system they've helped design is the one they'll get, and building a trust-based relationship with your clients is one of the most important things you can do.

Ask any mom, and she'll tell you the same: the best way to get kids to eat broccoli is to have them help cook it. The same principle works for solar sales.

5. Ask Questions, Then Ask for the Close

Why do so many solar salespeople fail at closing the deal? They spend too much time talking, and not enough time listening.

Every customer has his or her own set of reasons for (and objections to) going solar. Figure out what your client hopes to achieve by going solar, and show them how solar meets their needs. Overcome any objections as they come up by providing honest, simple answers that prove the value of going solar.

If you do these things, then closing the deal will be as easy as asking.

6. ABC: Always Be Closing

It's an old sales adage, but it's true. If you want to close more solar sales, you should always have your eyes on the prize. Don't race to the finish line and pull out the big contract without listening

to your customers, of course – but always remember why you're engaging with a solar prospect and lead them towards the value in order to close more deals.

MYTHS AND FACTS OF SOLAR ENERGY:

Despite the massive increase in home solar installations, several misunderstandings about solar energy persist. Here are the top ten solar power myths – and the facts that disprove them.

Myth #1 • All solar systems keep working even when the power goes out

In the event of a power outage, a building powered by a grid-connected solar power plant will lose power. During daytime power outages, buildings that are completely off the grid (off-the-grid) or powered on a hybrid system can continue to use solar power.

For 100 percent uptime, backup batteries may be combined with a grid-tied device. You'll have electricity even though there's a power outage if you add backup batteries. Batteries store solar power generated by solar panels in off-grid, off-the-grid, and hybrid systems.

Myth #2 • Warmer climates are better for solar power generation

Solar panels use the sun's illumination rather than its heat to generate electricity. Solar panels lose productivity as the temperature rises. During cloudy or rainy seasons, solar panels do not fully shut down. They continue to run at a 50% productivity level. Furthermore, the surplus electricity generated during the summer months is available in the form of energy credits/money to be used during periods when there isn't as much solar energy available.

As a result, cities with low annual temperatures, such as Bangalore, are better suited for solar than cities with higher annual temperatures, such as Chennai.

Myth #3 • Solar panels are prone to damage from wind, birds, animals, and more

The dense bird population in India raises questions about bird droppings on solar panels. Bird droppings have only one effect on solar panels: they reduce their effectiveness. Set up a scarecrow to keep the birds away and mount the panels with enough cleaning room to prevent this. This would make cleaning the panels much easier.

To get the best out of your investment, cleaning your panels once every 15 to 30 days is recommended. Toughened glass is used on solar panels to avoid simple breakage. This means that a monkey standing on it, or even jumping on it, would do no harm. Solar panels, while not bulletproof, can survive strong winds and storms. The all-weather reliability of your solar power system is determined by the standard of workmanship – mounting frame, tubing, and wiring.

Myth #4 • Most Indians cannot afford to own a solar power system

Many of us believe that going solar is a privilege, and that it is only available to the rich. This isn't the case. Solar has become a viable choice for all land owners due to falling prices and the availability of funding alternatives such as loans and government subsidies. Incentives focused on solar energy generation are available to property owners. You'll see benefits straight away if your solar system meets 100 percent of your energy requirements and your annual solar lease fee/loan instalment is less than your average electricity bill. You might wonder what the ROI (return on investment) and payback period are. The majority of customers see a return on their solar investment in 5 to 7 years. After the initial investment is repaid, the power provided by the machine is free for the next 18–20 years.

Myth #5 • Making solar panels is bad for the environment as they require more energy to be manufactured than they produce

The embodied energy of a commodity is the energy used to harvest, process, ship, and produce it. Solar panels normally provide enough electricity to repay the embodied energy within 3-4 years, according to several older reports. However, in recent years, panel productivity and production techniques have improved dramatically, reducing the amount of time required to make up for embodied energy. As a result, if a panel consumes electricity reliably for 20-25 years, it will quickly repay the embodied energy and offset thousands of tonnes of carbon over the course of its lifespan.

Myth #6 • Solar panels damage your roof

Solar panels, on the other hand, directly shield the area of the roof they cover from external factors including birds and wind. The panels themselves aren't heavy or big enough to do damage to the house's roof. Solar installers are also well-trained and collaborate with the roof's condition to ensure the right fit in terms of utility and aesthetics.

Myth #7 • You need to own a building to go solar

Don't own real estate yet? Not a problem! There are many other innovative ways to go solar. We have covered some examples in this article.

Myth #8 • You can't run heavy loads like heating appliances (air conditioner or heater) on solar power

You certainly will. Companies will assist you in calculating your everyday energy requirements and determining how many solar panels you'll need to meet those requirements. One kilowatt-hour

(3 solar panels) generates about 4 units of electricity per day. As a result, a standard 3-4 BHK house in Bangalore will need approximately 12-15 solar panels to meet its regular energy requirements.

Myth #9 • All solar panels are imported from China

India also has a number of well-known solar manufacturers. Vikram Solar, Tata Power Solar Systems Ltd., Waaree Solar, and Adani Solar are a few examples.

Solar Energy: Barriers and PESTEL Analysis

1. Capital Expenses

The capital costs are the costs associated with constructing the solar farms. It is one of the major impediments to the development of renewable energy technology. As a result, the majority of the cost would be incurred in the development of these technologies. Solar technology installation would be more expensive, causing the government and financial institutions to view renewables as dangerous. They have the ability to lend money at higher rates, making it difficult to maintain their investments.

However, investors should be aware that when the costs of constructing utility-scale solar are factored in, they can become the least expensive renewables. Furthermore, their energy capital costs may continue to decline in the next years.

2. Misconceptions About Their Dependability

One of the impediments to solar power adoption may be misconceptions about renewable energy's reliability. Solar generating would always require government aid to build electrical grid, making it unreliable, according to renewable energy competitors. They can also emphasize that when the sun doesn't shine renewable energy generators will require fossil fuels as a backup. When solar panels are installed across a vast area and combined with matching generation sources, they become extremely reliable. Consideration of the value of solar and other renewable resources can be advantageous for many utilities. These renewables can provide energy planners both long-term potential and narrowcast parameters.

3. The Transmission and the Location

Solar energy is a decentralized renewable energy source. They are small producing systems that are dispersed across a vast region and work together to generate electricity. Grid resilience is one of the benefits of decentralization. They can, however, still pose two major obstacles to

renewables: siting and transmission. It might be difficult to find an adequate location, which is one of the barriers. It also necessitates permits, contracts, community interactions, and negotiations, all of which add to the project's expenditures. Transmission, on the other hand, is the infrastructure and power lines required to control and transmit electricity from the point of generation to the point of consumption. However, because solar power is a newcomer, most transmission lines were developed to accommodate nuclear power and fossil fuels.

4. There is a Disparity in the Playing Field

One of the challenges to renewables is the unfair playing field created by other energy industries. It means that multibillion-dollar industries cannot exist without political sway.

Some businesses have also diverted funds to more productive projects, such as energy efficiency, which may have an impact on the expansion of renewable energy. Solar will also receive fewer subsidies and favorable political treatment. The mismatch between policy and science highlights the possibility that the price you pay for energy solutions such as fossil fuels does not reflect their true cost.

It also means that renewables would be on an uneven playing field. They're up against industries that are subsidized directly yet are powerless to punish pollution indirectly.

PESTEL ANALYSIS OF SOLAR INDUSTRY:

Political Factors:

Political factors play a significant role in determining the factors that can impact First Solar, Inc.'s long term profitability in a certain country or market.

- Political stability and importance of Semiconductor - Specialized sector in the country's economy.
- Risk of military invasion
- Level of corruption - especially levels of regulation in Technology sector.
- Bureaucracy and interference in Semiconductor - Specialized industry by government.
- Legal framework for contract enforcement
- Intellectual property protection
- Trade regulations & tariffs related to Technology
- Pricing regulations – Are there any pricing regulatory mechanism for Technology
- Taxation - tax rates and incentives
- Wage legislation - minimum wage and overtime

Economic Factors:

The Macro environment factors such as – inflation rate, savings rate, interest rate, foreign exchange rate and economic cycle determine the aggregate demand and aggregate investment in an economy. While micro environment factors such as competition norms impact the competitive advantage of the firm.

- Type of economic system in countries of operation – what type of economic system there is and how stable it is.
- Government intervention in the free market and related Technology
- Exchange rates & stability of host country currency.
- Efficiency of financial markets – Does First Solar, Inc. needs to raise capital in local market?
- Infrastructure quality in Semiconductor - Specialized industry
- Comparative advantages of host country and Technology sector in the particular country.
- Skill level of workforce in Semiconductor - Specialized industry.
-

Social Factors:

Society's culture and way of doing things impact the culture of an organization in an environment.

- Demographics and skill level of the population
- Class structure, hierarchy and power structure in the society.
- Education level as well as education standard in the First Solar, Inc. 's industry
- Culture (gender roles, social conventions etc.)
- Entrepreneurial spirit and broader nature of the society. Some societies encourage entrepreneurship while some don't.
- Attitudes (health, environmental consciousness, etc.)
- Leisure interests

Technological Factors:

Technology is fast disrupting various industries across the board. Technology analysis involves understanding the following impacts -

- Recent technological developments among competitors
- Technology's impact on product offering
- Impact on cost structure in Semiconductor - Specialized industry
- Impact on value chain structure in Technology sector
- Rate of technological diffusion

Environmental Factors:

Different markets have different norms or environmental standards which can impact the profitability of an organization in those markets. Even within a country often states can have different environmental laws and liability laws. Similarly, a lot of European countries give healthy tax breaks to companies that operate in the renewable sector.

Some of the environmental factors that one should consider beforehand are -

- Weather
- Climate change
- Laws regulating environment pollution
- Air and water pollution regulations in Semiconductor - Specialized industry
- Recycling
- Waste management in Technology sector
- Attitudes toward “green” or ecological products
- Attitudes toward and support for renewable energy

Legal Factors:

In number of countries, the legal framework and institutions are not robust enough to protect the intellectual property rights of an organization. Some of the legal factors that any firm entering the solar industry should consider are -

- Anti-trust law in Semiconductor - Specialized industry and overall, in the country.
- Discrimination law
- Copyright, patents / Intellectual property law
- Consumer protection and e-commerce
- Employment law
- Health and safety law
- Data Protection

SOLAR ENERGY DRIVERS:

- **DEPENDENCY ON AND AVAILABILITY OF FOSSIL FUELS**

The first possible driver for a transition to solar energy in developing countries discussed here shall be the countries dependence on fossil fuel, and corresponding the availability of these fuels in the country.

- **INTERNATIONAL ECONOMIC DEVELOPMENT**

Developed countries may also have economic interests in facilitating a transition to solar (renewable) energies in developing countries.

- **ECONOMIC DEVELOPMENT**

A driver connected to Social Development is the issue of Economic Development. Developing countries are called developing, since they aim to alleviate their economies to the level of a developed nation.

- **CLIMATE PROTECTION**

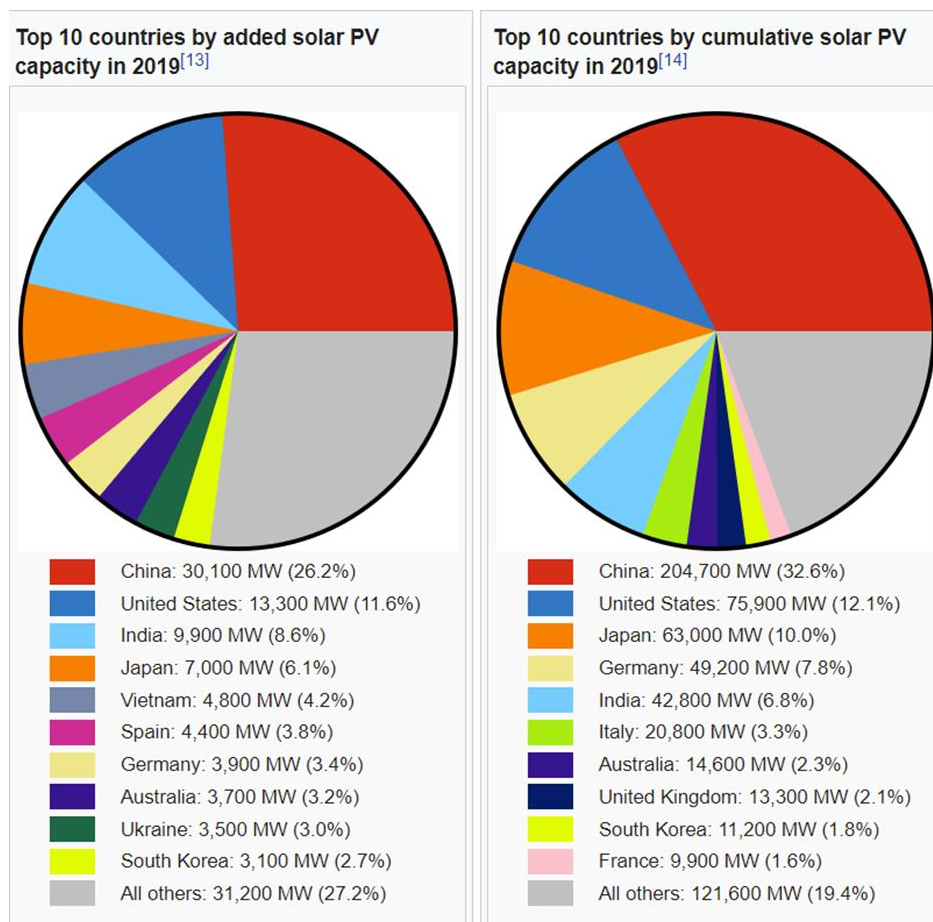
An international interest in reducing CO₂ output and protecting climate in developing countries can also help to drive a transition to renewable energy in these countries.

- **SOCIAL DEVELOPMENT**

Another factor that is of interest to developing countries trying to decide, whether to make the transition to renewable energies are the social developments that they allow compared to fossil fuels.

SOLAR ENERGY IMPLEMENTATION: INDIA VS OTHER COUNTRIES

- **Comparison of solar capacities in various countries**



- **Solar energy implementation in India**

- India has the world's third fastest expanding solar power program (next only to China & USA).
- In the year 2017 alone India added a record 9,255 MW of solar power with another 9,627 MW of solar projects under development.
- India launched its National Solar Mission in 2010 under the National Action Plan on Climate Change, with plans to generate 20 GW by 2022.
- Prime Minister Narendra Modi announced an initiative to increase the solar capacity to 100 GW and total renewable power capacity to 175 gigawatts (GW) by 2022.
- India is now expected to obtain 40 percent of its electricity from non-fossil fuel sources by 2022, eight years ahead of schedule.
- With developers getting long term visibility in terms of project pipeline and actual off-takers witnessing value in adopting solar electricity, India is poised to secure its

renewable future.



- **Solar energy implementation in other countries**

- Over the years, the United States has made strides in positioning itself as a leader in solar energy production, along with China, India, Japan, and Vietnam.
- Although solar power was once seen as a niche market, these countries are proving that this source of renewable energy is a legitimate answer to the world's search for alternatives to fossil fuels.
- China leads the world as the top producer of solar energy, installing more than 30.1 GW of photovoltaic (PV) capacity in 2019.¹
- The United States, India, Japan, and Vietnam rank next on the list of top solar producers.
- While China's PV market share was 27% for 2019, this is down significantly from 2017, when the nation's market share reached 51%.²
- A record number of new countries are increasing their PV capacity, cutting into China's market dominance.

HOW SOLAR POWER WILL HELP IN BOOMING ECONOMY:

How can solar power sector drive India's economic growth and make India Atmanirbhar?

- Amid COVID-19 pandemic, countries around the world are preparing to reboot their

economies. It is being said that the power sector can play an important role in setting the Indian economy in motion. Green Energy (Solar Power Sector) can make India Atmanirbhar but how? Let us study in detail.

- The economic slowdown we have seen due to COVID-19 and so it is necessary to make India Atmanirbhar. And in this, solar power sector can play an important role. According to the Observer Research Foundation (ORF), ramping up solar energy generation and equipment manufacturing can make the economy of India sustainable and Atmanirbhar.
- As per the announcement made by the Prime Minister Narendra Modi focusing towards 'Make in India' therefore India's solar energy has a welcoming opportunity to boost the domestic economy and make its economy 'self-reliant' the post-pandemic era. India's ambitious target of achieving 100 GW of solar capacity by 2022 has been disrupted from China due to coronavirus.
- As countries in the world are generating plans for the recovery of economic growth post-COVID-19 Pandemic, in fact, several debates have been started to choose the correct economic growth model. Do you know that the old quantitative Economic Growth Model was dependent on fossil fuels for energy and the new qualitative economic growth model dependent on renewable energy?
- In fact, major countries in the world have shown a clear shift from an old economic growth model to a new economic growth model. Like European Green Deal should be central to a resilient recovery after COVID-19. Even South Korea to implement Green New Deal after ruling party election wins.
-

WHAT IS INDIA'S STAND IN THIS?

- India showed a commitment to use clean green renewable energy for economic growth. By 2022, India has set itself of 175 GW renewable energy capacities including 100 GW of solar and 60 GW of wind power capacity.
- But the generation of solar energy and solar equipment manufacturing sector has not received the due importance in Atmanirbhar Bharat Abhiyan.

HOW SOLAR POWER SECTOR CAN MAKE ATMANIRBHAR BHARAT?

- No doubt India has a great potential for the generation of solar energy. It is a tropical country that is around 300 clear sunny days in a year. In various ways, the development of solar

sector can help India in achieving Atmanirbharta or self-reliant.

- - It will create employment.
- - It will lead to rural development.
- - On the other hand, there will be a reduction in fuel import bills.
- - It will also reduce the dependency on oil-producing countries.
- - Installation of power generation units at a faster rate.
- - Also, it will support a clean environment and will enhance the quality of life.
- If we see employment generation sector then solar power sector can provide employment to all kind of labours including skilled, semi-skilled and unskilled in several activities like manufacturing of solar equipment, development of solar power plant and installation and maintenance of Roof Top Solar Panels.
- In solar power sector demand of installation of roof-top solar panels will generate entrepreneurship and jobs in rural India. Availability of power will promote cottage and small-scale industries in rural India. The income disparity gap will also be bridged between rural India and urban India.
- It has been seen that since 2013-14 till 2018-19 import of coking and non-coking coal is increased and for this, we are dependent on other countries. Not only this, but the financial year oil import bill also increases every year. India is amongst the fastest growing economies but largely it is dependent on imports of energy. Here, at this point, the sustained growth dampens and the Indian strategic interest is at risk. Here, non-conventional energy sources like solar energy, wind energy etc. are the key sources.
- But to construct a 500 MW capacity solar plant it takes around 18 months and to construct thermal or hydel plant might take 2 to 3 times more time. The point to be noted here is that the cost of construction and financing for a new solar plant is 14% less than that of a thermal or hydel plant.
- The ground reality is that the solar power sector of India is heavily dependent on China. Having an ambitious target of solar power generation, India has solar cell manufacturing capacity of about 3 GW annually but the average annual demand is 20 GW. From top 10 India's module suppliers 7 are from China firms. India had already imported around \$16 billion worth of solar equipment in the past five years. And by 2030, India may import around \$42 billion of solar equipment.

ECONOMIC BENEFITS OF SOLAR ENERGY:

Solar energy brings environmental, social and economic benefits. According to a recent report by the International Renewable Energy Agency (IRENA), if we double renewable energy's

current share in the global energy mix, global gross domestic product (GDP) would increase by as much as 1.1 percent, or approximately \$1.3 trillion, by 2030.

Solar energy provides many direct and indirect economic benefits on both a micro and macro level. Here are some of them:

Job Creation:

More than 10 million people work in the renewable energy sector worldwide, with more than 500,000 new jobs added in 2017. The sector provides many different types of jobs, including positions in manufacturing, installation, engineering, sales, marketing and more. Jobs are expected to continue to grow well into the future. The U.S. Bureau of Labor Statistics (BLS) forecasts that the solar photovoltaic installer occupation will grow by 105 percent between 2016 and 2026 and that the demand for wind turbine service technicians will grow by 96 percent during the same period.

The cost of solar is going down:

The cost of home solar systems has dropped dramatically in recent years, falling more than 70% in just the last decade.⁹ The cost of home solar batteries has dropped substantially as well.⁹ There are now over a million solar installations across the U.S. Despite falling costs, out-of-pocket expenses can add up. That's why Sunrun offers flexible home solar plans that start at \$0 down to make renewable energy accessible and affordable. Our Sunrun Guarantee covers you for up to 25 years.

Increase your home's value:

The price of an average rooftop solar installation and battery is likely to be recouped in your home's sale price. Studies show that homeowners will pay a premium for a solar home. Across the U.S., solar panels raise a home's value by 4.1% on average. That means a home valued at \$500,000 could get a \$20,500 increase. Not only do solar homes sell for more, there's evidence that they sell faster, too. The numbers say it all: Installing home solar panels is likely a sound investment. Whether you plan to upgrade your home for a future sale or make it your forever home, you can expect that property value will likely increase.

Solar panels offer long-term value:

If properly treated and maintained, your panels could offer you long-lasting clean power for decades. Solar panels are designed to last more than 25 years, and manufacturers typically back their products with performance guarantees and warranties. Your solar panels should have a

lifespan of about 20-30 years.

Reduced Energy Costs:

Switching to renewable energy is an excellent way for residential, commercial and industrial energy customers to save money on their bills. Installing solar panels on your property allows you to generate your own electricity, theoretically giving you the ability to reduce your energy bill to zero. The exact amount you save depends on many factors, including where you live.

Renewable energy offsets the costs of climate change:

An increasingly warming planet has devastating costs to both our economy and our well-being. If we reduce our carbon footprint and decrease air pollution, solar power can save \$259 billion in climate change damages and save more than 25,000 lives. The alternative? Attempting to replace an aging electric grid that could cost the U.S. \$5 trillion in repairs. Our country and our planet simply can't afford to stay with the status quo.

Sunlight costs \$0:

At the end of the day, sunlight costs nothing. Abundant, renewable, and reliable, the sun is one of our most brilliant natural resources. By contrast, fossil fuels like coal and natural gas can't be replaced, and their cost is at the will of market forces often beyond our control. The country's solar potential is tremendous. Just one hour of noontime summer sun can provide the U.S.'s annual electricity demands.

Stable Energy Prices:

Installing renewable energy facilities requires a substantial upfront investment, but after installation, they are cheap to operate. This is in large part because they don't require you to purchase fuel. Eliminating fuel costs lowers the cost of the electricity produced. It also means the price of electricity isn't susceptible to changes in the price of fuels, like it is with natural gas or coal. This may lead to more stable energy prices over the long term.

PART C

Suggestions and Recommendations

Problem areas the company might foresee within the next few years' time -:

- Brand Recognition: As a start-up, creating a brand identity and a specific group of customers would be difficult.
- The outbreak has already resulted in a significant increase in online purchasing platforms. Many local firms are flocking to the area, helping to shape its character. Consumers have already shown their preference for local platforms making stiff competition for the company. These may put Astorianz in a tough spot.
- Various management and innovation frameworks would have to be created.

Possible approaches to address these problems -:

- One possible solution to these issues would be to enhance access to social media platforms and use them to their maximum potential to raise brand recognition.
- The developed goods should be updated and innovated on a regular basis.
- Encouragement of product research and development.

Learning from the Internship

- Application and insights of ideas, tools, processes, and skills: Because the project is in the marketing domain, the majority of the concepts or theoretical knowledge employed here is mostly connected to marketing. Apart from marketing principles, it also contains some information on solar energy and its impact on the Indian economy, as well as a detailed analysis, interpretation, and economic data.
- This internship programme has taught me the fundamentals of marketing and strategy, as well as how to employ innovative alternative marketing tactics to meet goals and please clients. It taught me all I know about branded content, from content development to content production.
- My mentor has also assisted me in developing a strong awareness of what is required of me as a marketer in order to effectively utilise and maximise current resources. I've got the chance to develop my research abilities and get a better understanding of the value of research in all parts of marketing.
- It has improved my ability to analyse and comprehend data.
- Because the entire globe is affected by the epidemic, the internship has kept me engaged as well as deal with the stress the situation was generating.
- It assisted me in comprehending the solar energy markets.
- Learnt about new technologies assisted in gaining a better grasp of their future potential.
- Presentation skills—we enhanced our presentation abilities for the business sector as a result of this training. It was really helpful while we were preparing a PowerPoint presentation to deliver to our colleagues.
- Time management— because we worked from home for the duration of the internship, managing time between internship video call sessions, internship work, and other household duties was initially difficult, but we eventually learned how to manage time and split it to complete all things on time.
- Professionalism and work ethics- the current pandemic crisis impacted our internship in such a manner that everything was done online rather than in the company's office. However, we demonstrated professionalism and good work ethics by promptly reporting to our mentor, delivering completed work, and attending meetings on time.

Declaration

I, Urmi Thadani, hereby declare that this report is my original work and is not copied from anyone/anywhere. If found similar to other sources, I shall take complete responsibility of the action, taken thereof by, the institute.

Signature:



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Roll No.: 201254

Section: B

Batch: MBA – FT (2020-2022)

Date: 12th July 2021

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