THE SPARKLING TREE INTERNSHIP REPORT

A PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE
OF

MASTERS OF DESIGN
IN
VISUAL COMMUNICATION

Submitted by
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Main Bawana Road, Delhi 110042
APRIL, 2023

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CANDIDATE'S DECLARATION

I, Nikhil chauhan (2K21/MDVC/09), students of M.Des Visual Communication, hereby declare that the project report titled "**THE SPARKLING TREE INTERNSHIP REPORT**" which is submitted by me to the Department of Design, Delhi Technological University, Delhi in partial fulfillment of the requirement for the award of the degree of Masters of Design is original and not copied from any source without proper citation. This work has not previously formed the basis for the award of any Degree, Diploma Associateship, Fellowship or other similar title or recognition.

Place: New Delhi

Date : 22 April 2023

NIKHIL CHAUHAN (2K21/MDVC/09)

DEPARTMENT OF DESIGN

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Main Bawana Road, Delhi-110042

CERTIFICATE

I hereby certify that the Project Report titled "**THE SPARKLING TREE INTERNSHIP REPORT**" which is submitted by Nikhil chauhan (2K21/MDVC/09), DEPARTMENT OF DESIGN, Delhi Technological University, Delhi in partial fulfillment of the requirement for the award of the degree of Masters of Design is a record of the project work carried out by the students under my supervision. To the best of my knowledge this work has not been submitted in part or full for any Degree or Diploma to this University or elsewhere.

Place: New Delhi

Date : 22 April 2023

Prof. Ranganath M. Singari

Head, Department of Design

Delhi Technological University, Delhi

Neeraj Rathee

Assistant Professor, Department of Design

Delhi Technological University, Delhi

THE SPARKLING TREE

Date : 27th December 2022

Internship offer Letter

Dear **Nikhil Chauhan**,

The Sparkling Tree is pleased to offer you an educational internship opportunity as a **Product Designer** intern. You will report directly to Mr. Aman Anand. This position is located in Naraina, New Delhi.

As you will be receiving academic credit for this position, you will be paid INR 15,000. Additionally, students do not receive benefits as part of their internship program.

For this position, your major duties will include **Packaging, Photography, Product Development and Brand Development** . Your schedule will be approximately 40 hours per week beginning 01st January 2023. Your assignment will conclude on 31st March 2023.

Please review, sign and return via mail to confirm acceptance, no later than close of business on 30th December 2022.

Congratulations and welcome to the team!

Aman Anand
Managing Director, The Sparkling Tree

I accept the above offer, and will begin on: 01st January 2023

Name:
Place:

Nikhil / 2 jan 2023

Signature Date

DEPARTMENT OF DESIGN

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Main Bawana Road, Delhi-110042

ACKNOWLEDGEMENT

I wish to express my sincerest gratitude to Prof. Ranganath M. Singari and Neeraj Rathee for their continuous guidance and mentorship that they provided me during the project. They showed me the path to achieve our targets by explaining all the tasks to be done and explained to us the importance of this project as well as its industrial relevance. They were always ready to help me and clear my doubts regarding any hurdles in this project. Without their constant support and motivation, this project would not have been successful.

Place: New Delhi

Date : 22 April 2023

NIKHIL CHAUHAN (2K21/MDVC/09)

Abstract

Medium Density Fibreboard (MDF) is a popular laser cutting material in India, especially in the furniture and upholstery industry. Its range of MDF laser cutting products in India is extensive and covers a wide range of applications such as cutting, engraving and marking.

The market size of his MDF laser cut products in India varies from state to state. The major states where the MDF laser cutting industry has a strong presence are Maharashtra, Karnataka, Tamil Nadu, Delhi and Gujarat. There is a lot of furniture manufacturing in these states and the use of MDF laser cutting technology has increased significantly. According to a report by IndustryARC, the MDF market in India was valued at USD 1.53 billion in 2019 and is expected to reach USD 2.33 billion by 2025, growing at a CAGR of 6.3% during the forecast period. Increasing demand for MDF in the furniture and construction industry is accelerating the growth of the market.

In terms of applications, the furniture segment dominates the MDF laser cutting market in India. The demand for MDF laser cutting machines used in furniture production is expected to increase in the coming years as the demand for custom and designer furniture increases. Overall, the MDF laser cutting industry in India is expected to grow steadily in the coming years due to increasing demand for MDF boards in various industries including furniture and construction industries. The growing popularity of laser cutting technology for MDF boards is also said to be contributing to the market growth.

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COMPANY PROFILE

THE SPARKLING TREE

Founded in 2018 by art enthusiasts for merely generating side pockets. Slowly side business became a passion and turned out to be full time business. The Sparkling Tree is one stop brand which provides home decor, utility, print bound diaries, art supplies and customized products for customers & brands such as CP Plus, Oriflame, Asian Paints, Devrana, Hippo, Policy Bazaar, Yippee, Pearl Academy, UPES, College of Art, APPEX, Impex, Kohler, D.M.R.C., Fortis, Hue Art studio, Davar, Onkar Foundation etc.

The Sparkling Tree organizes & takes part at events such as BOHO Bazaar, Horn Ok, Aga Khan Hall, Bikaner House and many colleges like Miranda House, Hansraj, College of Art etc. A brand that conducts workshops in collaboration with Art studios & cafés to promote art.

At The Sparkling Tree, the process of making a product starts with concept sketch, manual layout with color combinations, line drawing and digital format, a raw sketch at photoshop & Corel draw with layer drawing and then giving a 3D perspective.

Their goal is to ensure the best delivery of quality in which selection of raw material (thickness of material), selecting the raw material, paints, MDF, acrylic, laser cutting & engraving, cleaning and color filling (intaglio), pasting, assembling and packaging; this whole process goes very smooth and accurate to get the exact product output. The motive of The Sparkling Tree is to construct a trustworthy brand image for home decor & art supplies.

During my period of internship, The Sparkling Tree changed its logo.The old logo represents the symbol of life tree while the new logo has been designed by Mr. Mohit Kesur and have a very expressive and connected visual.The design is inspired from the patterns we make in other products like lamps, coaster etc. and is the best visual representation for the brand.

THE SPARKLING TREE

Fig. 1 Old Logo- The Sparkling Tree

THE SPARKLING TREE

Fig. 2 New Logo- The Sparkling Tree

Internship Requirements

- Using drawing and interactive skills to produce product design and drawing.
- Use digital illustration line drawing, photo editing software, and layout software to create designs.
- Creating digital product line drawing using software such as illustrator & Corel Draw and technical skills.
- Using market knowledge, getting digital prints.
- Design new concepts for products, including selection of colors, images, and typefaces.
- Work with your team to brainstorm new and innovative growth Strategies.
- Ensure final graphics and layouts are visually appealing and on- brand.
- Doing product shoot and photo editing softwares such as photoshop & Lightroom.
- Discussing new brand opportunities and ideas.
- Doing market work and dealing with the vendors to get the work done.
- Finalizing the product.

Background Study

A powerful laser beam is used in the manufacturing process of "laser cutting" to cut, etch, or engrave a variety of materials, including metal, wood, plastic, and fabric.

The first laser cutting machines were created in the early 1970s by a number of businesses, including the British firm Bystronic, the American firm Control Laser, and the German firm Trumpf.

These devices were initially utilised in the aerospace sector to cut intricate designs from sheet metal, but they quickly found employment in a wide range of other sectors, such as the automotive, electronics, and jewellery sectors.The development of CNC (Computer Numerical Control) technology allowed for the more accurate and precise programmability of laser cutting equipment in the 1990s. In numerous fields today, including industrial, aerospace, automotive, medicine, and fashion, laser cutting technology is used. The progress of the

Additionally, the use of laser cutting technology has sparked the creation of numerous new products, including elaborate metal jewelry, unique phone cases, precise mechanical parts, and more. For designers and producers, the ability to precisely cut and engrave materials has created a wealth of new opportunities. As a result of years of development, the technology is currently a widespread manufacturing method with several applications across numerous industries. Numerous new items have been created thanks to the accuracy and adaptability of laser cutting technology, expanding the options available to both designers and producers.

Methodology

A. Business Development

A new laser cutting business requires a blend of technical know-how, business acumen, and the ability to work with several stakeholders and clients.

1. Conduct market research to identify potential customers and competitors
2. Create and implement strategies to entice and retain customers.
3. Establish and maintain relationships with suppliers, clients, and partners.
4. To fulfill client demands and fulfill goods on time, make sure you collaborate closely with the production staff.
5. Find and seize innovative business opportunities in new markets or industries.
6. Make sales pitches and offers to prospective customers.

B. Digital Marketing

Any start-up needs to attract customers in order to establish a solid market foothold. You can either do that by promoting your goods to the general public or by using social networking sites like Instagram, Twitter, Facebook, and Whatsapp.

We started with Instagram since it is a hotbed for viral material, and using the right hashtags makes it simple to advertise and market without investing a lot of money. To do that we followed the following steps:

1. **CREATE SPECIFIC TEMPLATES FOR REELS AND POSTS:**

Fig. 3 Specific and Vibrant templates

Creating vibrant and specific templates helped in catching user's attention and hooking them with the content in the respective reel/post. Going with the trending content also helped attract the audience to our page. After landing on our page they would get to know about our services and products.

2. CREATING ACCOUNTS ON FLIPKART & MEESHO

We created accounts on Flipkart and Meesho for digital marketing and selling products. Flipkart and Meesho provides a strong support to the business and is very relevant for the brand.

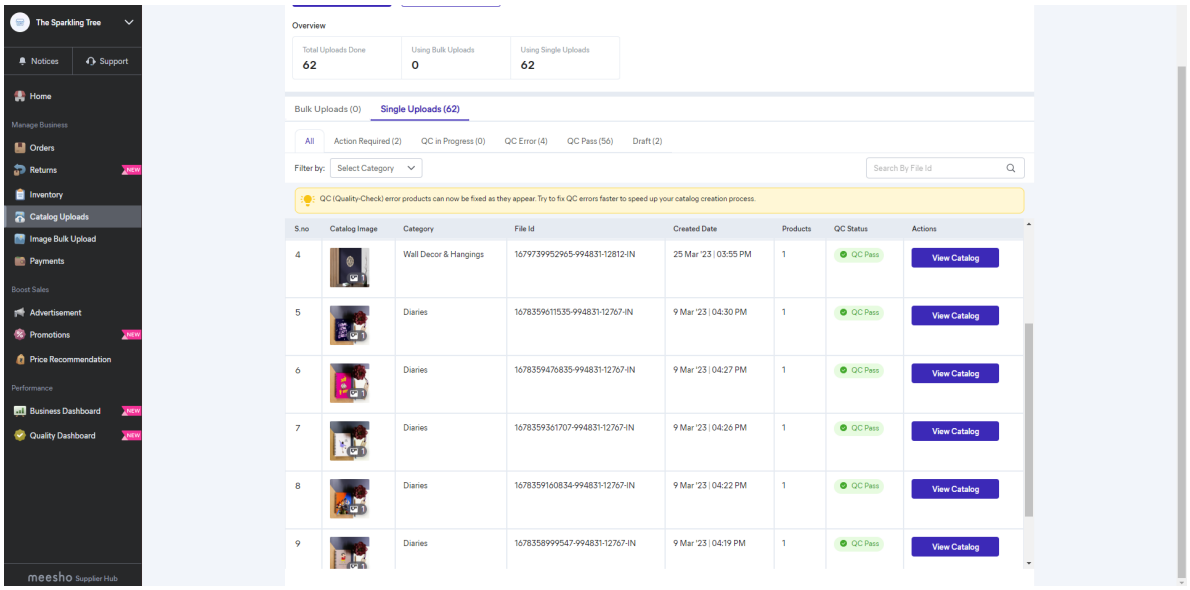

Fig. 4 Meesho Product portfolio

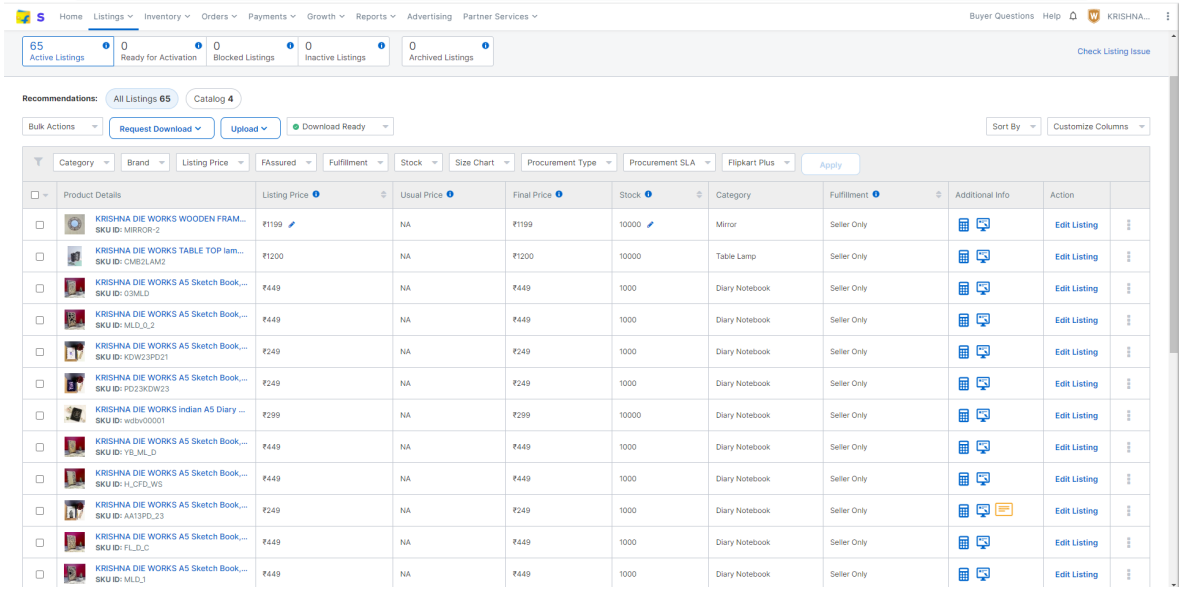

Fig. 5 Flipkart Product Portfolio

C. DOING ONE TO ONE MARKETING

One-to-one marketing, sometimes referred to as personalised marketing or individual marketing, is a marketing strategy that emphasises developing unique consumer experiences.

By learning about each customer's wants and preferences, one-to-one marketing may be employed in the laser cutting industry to provide unique experiences for each client. We implement one-to-one marketing in following ways:

1. To make recommendations for products that are specifically suited to each customer, use data analytics to ascertain their interests.

Fig. 6 Momentos for Students of College of art

Fig. 7 Diaries for students of College of Art

2. Customised laser cutting designs: Create one-of-a-kind laser cutting designs in collaboration with each client to satisfy their individual needs and preferences.

Fig. 8 Collaboration with One cord on Diary Cover

Fig. 9 Name plate according to the customers preference

3. Create customised offers and promotions based on the past purchases of each consumer.

D. GIVING WORKSHOPS AND ATTEND EVENTS

The Sparkling Tree is a business that offers programmes for children and teenagers in addition to having booths at various events. These workshops are made to promote the business's goods and services while giving the attendees a pleasant and engaging learning experience. The courses frequently concentrate on the craft of making handcrafted ornaments and crafts out of a variety of materials, such as paper, fabric, and other environmentally friendly materials. The organisation wants to offer a distinctive and entertaining learning opportunity that fosters creativity and supports sustainable living principles.Along with hosting seminars, The Sparkling Tree also exhibits its goods and interacts with prospective clients at a range of events, such as fairs, festivals, and trade shows. The Sparkling Tree is able to promote their dedication to sustainability and

eco-friendly practices while also increasing brand recognition by combining their involvement in events with educational sessions.

Fig. 10 Giving workshop to some students

Fig. 11 Stall at BOHO Bazaar

E. PROCEDURE OF MAKING THE PRODUCT

To produce the required product, the laser cutting industry requires a number of stages that must be carried out precisely. The steps involved in laser cutting are described in detail below:

Concept Sketch: Creating rough sketches and visualizations of potential products or design concepts is part of the concept sketching stage of the laser cutting design process. Without getting mired down in the specifics of laser cutting, the goal of this technique is to swiftly capture and develop concepts. Designers might proceed to more intricate technical drawings and 3D models, which can be utilized to build a laser cutting template or file, after the initial concept sketches are finished. Overall, concept sketching is a crucial stage in the design process for laser cutting since it enables designers to explore their concepts and fine-tune their creations before moving on to the process' more technical aspects.

Line drawing in digital format: Digital images made up of lines and points that outline the boundaries and curves of a design or image are called line drawings. A digital line drawing is the starting point for developing a laser cutting template or file in laser cutting. A digital drawing's lines can be drawn with the aid of software such as Adobe Illustrator or Corel Draw or a digital drawing tablet, and after being loaded into a programme for laser cutting, the laser cutter follows the lines to produce the desired shape or design. Digital line drawings are a crucial component of laser cutting because they enable precise and accurate cutting of intricate designs and shapes.

Raw material selection: Choosing the right raw material is the first step in the process. MDF, acrylic, wood, and other materials suitable for laser cutting may be used in this. The thickness of the material must also be taken into account because it affects the laser's power and cutting speed.

Ordering the Raw material: After choosing the right substance, it is time to place an order with the provider. The ability of the supplier to offer premium materials at competitive prices should be taken into consideration while selecting them.

Laser cutting and engraving: Following that, a strong laser is used to laser cut and engrave the material. The material is sliced into the appropriate shape and size by the laser cutting equipment with computer-controlled precision. This stage also allows for the engraving process, which uses the laser to engrave patterns or designs into the material.

Cleaning and color filling (intaglio): After the laser cutting and engraving process, the product is cleaned to get rid of any debris or residue. This process is known as colour filling (intaglio). In order to add

contrast and depth to the design, the engraved sections are filled with paint or resin if colour filling is necessary.

Pasting: The next step is to glue the product's component parts together. This can entail attaching the various components together using fasteners or glue.

Assembling: Putting the finished item together is the last stage in the procedure. Adding finishing touches, such as mounting hardware or decorative components, may fall under this category.

Packaging: The item is packaged and made ready for shipping after it has been put together. In addition to being appealing and educating for the consumer, the packaging should be made to safeguard the product throughout transportation.

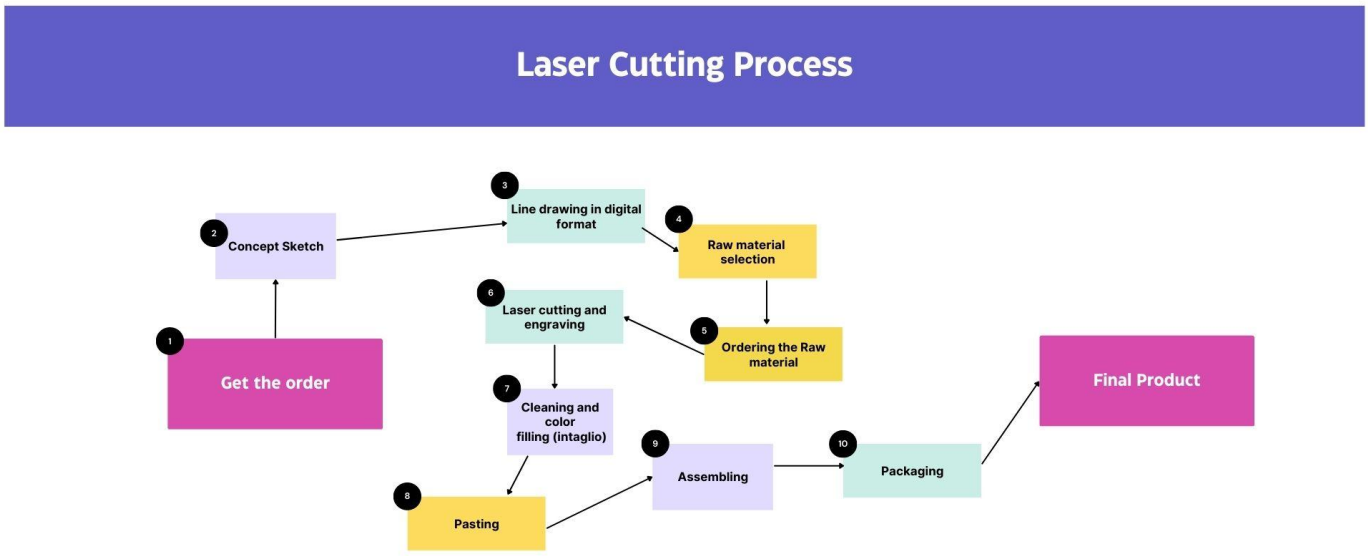

Fig. 12 Flow chart of laser cutting process

Let see detailed process of a product- **CP Plus Certificate**

During this internship we worked on various projects among those one is CP Plus certificates.

The leader in cutting-edge security and surveillance solutions is CP Plus. CCTV cameras, video door phones, access control systems, and video management software are just a few of the security-related goods and services the business provides. With a presence in more than 60 nations, CP Plus has made a name for itself as a reputable and trustworthy supplier of security solutions to organizations and individuals worldwide. The business is dedicated to technological advancement, and its products are made to offer cutting-edge security solutions that are both efficient and simple to use. CP Plus is committed to provide its customers the finest level of service and support, making sure that their security needs are handled with the utmost professionalism.

Leading supplier of security and surveillance solutions CP Plus recognises the value of forging close bonds with its distributors and resellers. CP Plus frequently gives gifts and incentives to its network of partners as a thank you for their effort and commitment. These presents can be anything from giveaways like t-shirts and keychains to more expensive prizes like trips and devices along with certificates. By giving these presents, CP Plus is encouraging its distributors and resellers to keep up the good job and promote CP Plus products in their local regions as well as showing its appreciation for their efforts. These presents contribute to the development of trusting connections between CP Plus and its partners, which finally results in a better comprehension of the market and clientele. The presents given are just one way that CP Plus shows its commitment to this collaboration with its network of partners, which the firm believes is essential to its success.

The Sparkling Tree worked with CP Plus before as well where they made certificates for them last year.

Fig. 13 Line drawing of Old CP Plus Certificate

Fig. 14 Digital illustration of Old CP Plus Certificate

This time they wanted to make something new and different from last year. This year there are 3 categories in the certificate:

1. Platinum for Premium Distributors
2. Golden for Distributors
3. Silver for Reseller

For creation of CP Plus Certificate the following steps were followed.

a. Concept Drawing of Certificate: Since we have to make something new and different this year in 3 different categories we decided to make one design in different colours. To make the certificate look premium we made a pattern on it.

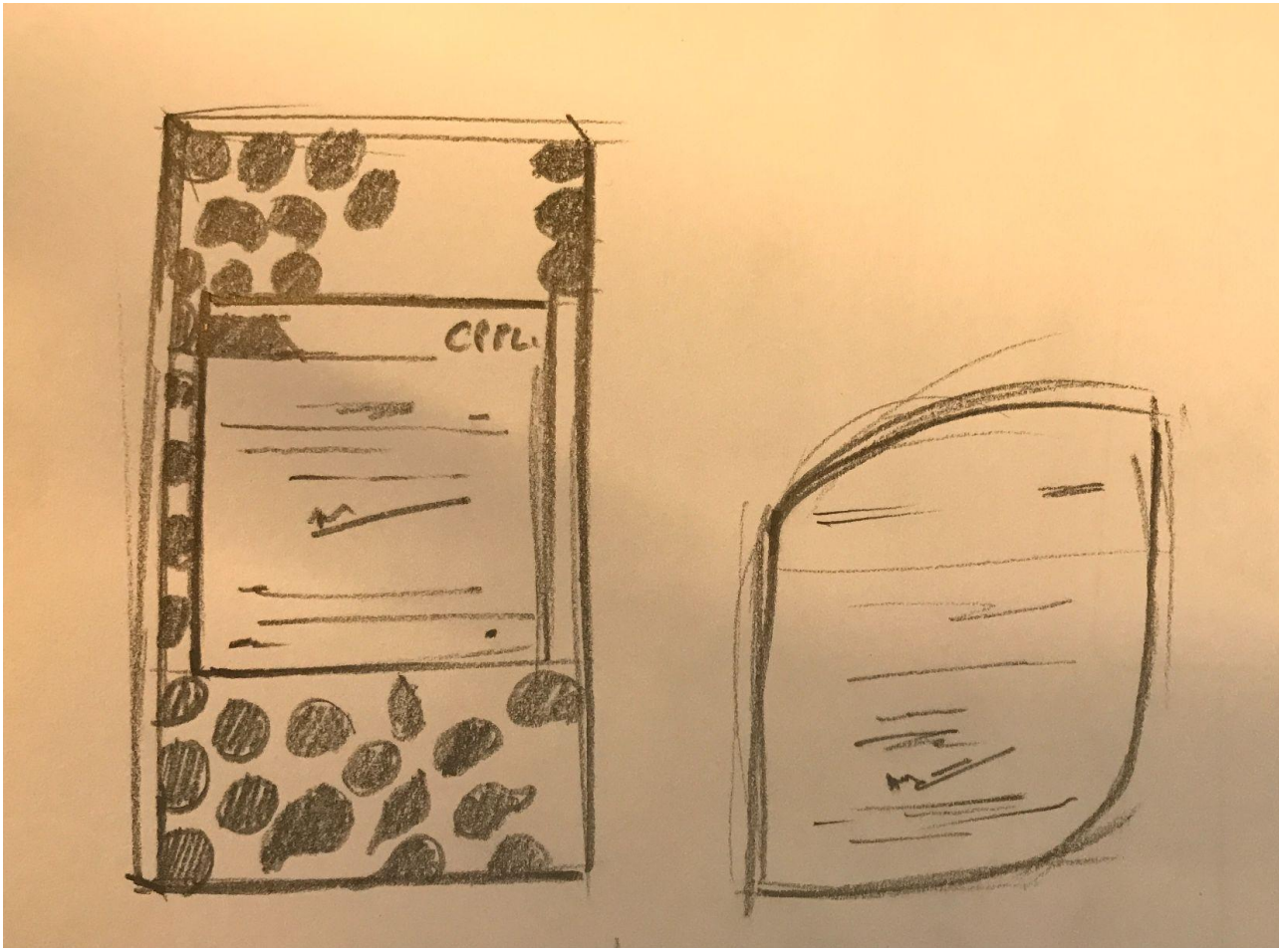

Fig. 15 Rough Sketch of Certificate

b. Line drawing in Digital format: Once the final form was finalised, we started making line drawing in Corel Draw software. The design was made in line drawing in different layers according to the material and cutting and engraving preferences.

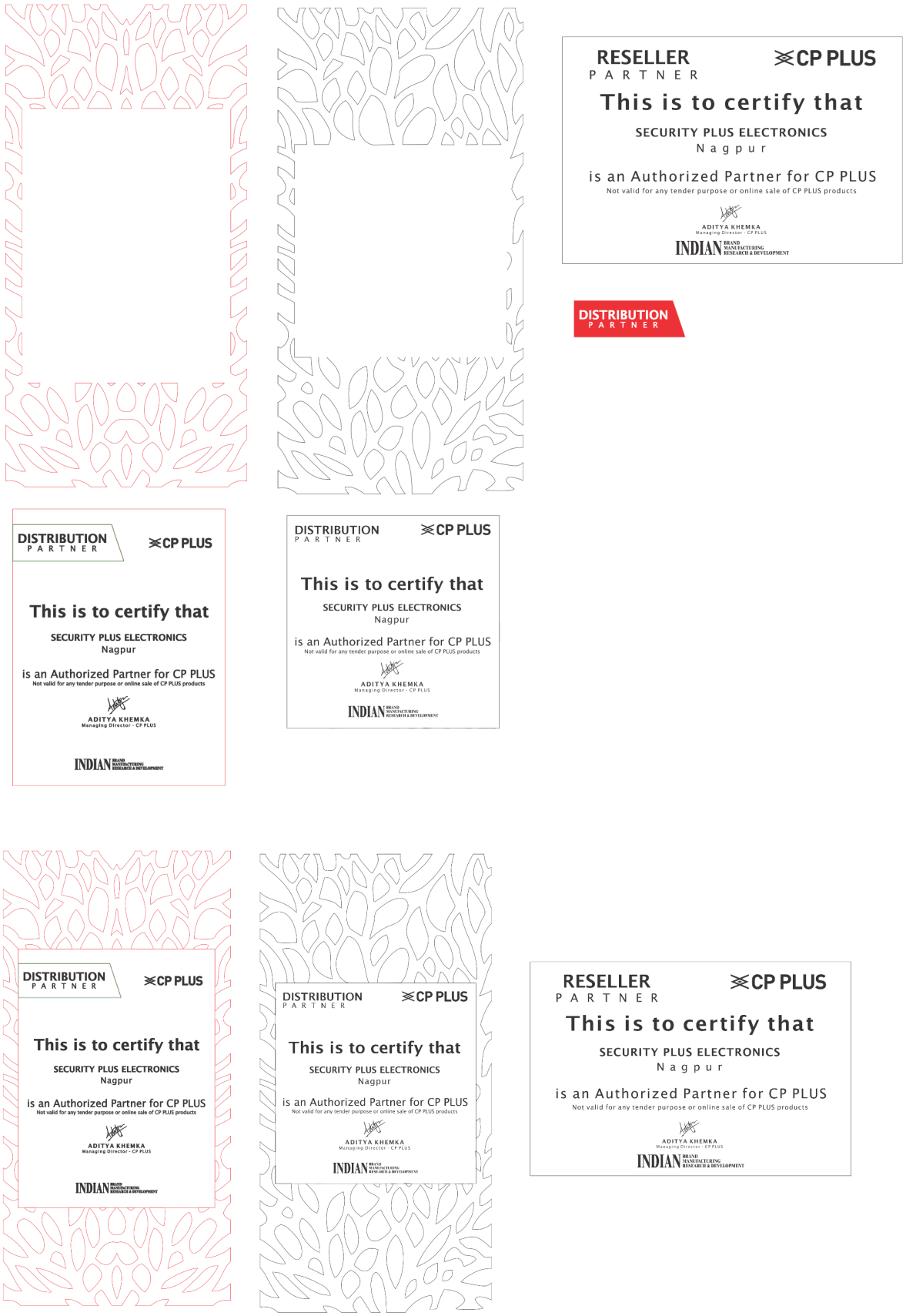

Fig. 16 Line Drawing of Certificate

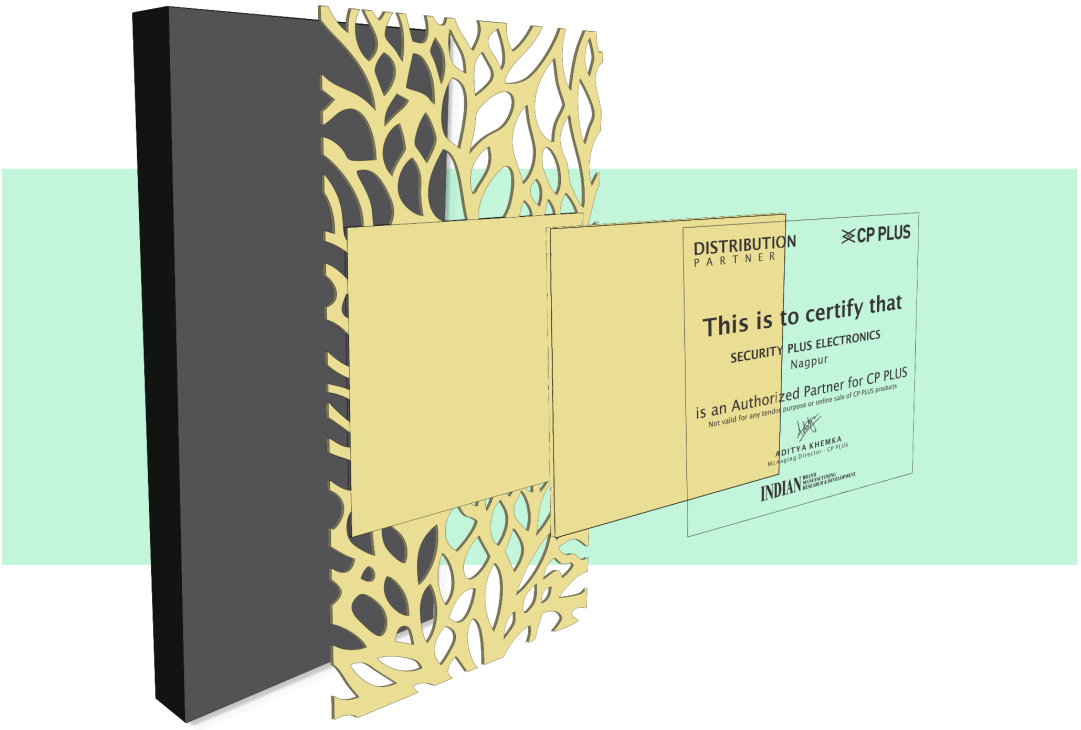

Fig . 17 3D drawing of coloring virtual look

Fig. 18 3D drawing of coloring virtual look

c. Selection of raw material: Once the designing is done, we select the raw material for production. For the base we have used 12 mm MDF which was painted black. Then, we used 2.3 mm acrylic sheets in golden, silver colours for different categories and in the last layer we used 2.5 mm red acrylic.

2mm Golden Acrylic **12mm Raw MDF** **2.2mm Red acrylic**

Fig. 19 Raw material

d. Laser Cutting and Engraving: After selecting the raw material, the engraving and cutting of the product starts. In this certificate, we cut the pattern and engrave the text on an acrylic sheet. The text on red acrylic is also engraved.

Engraving and Cutting

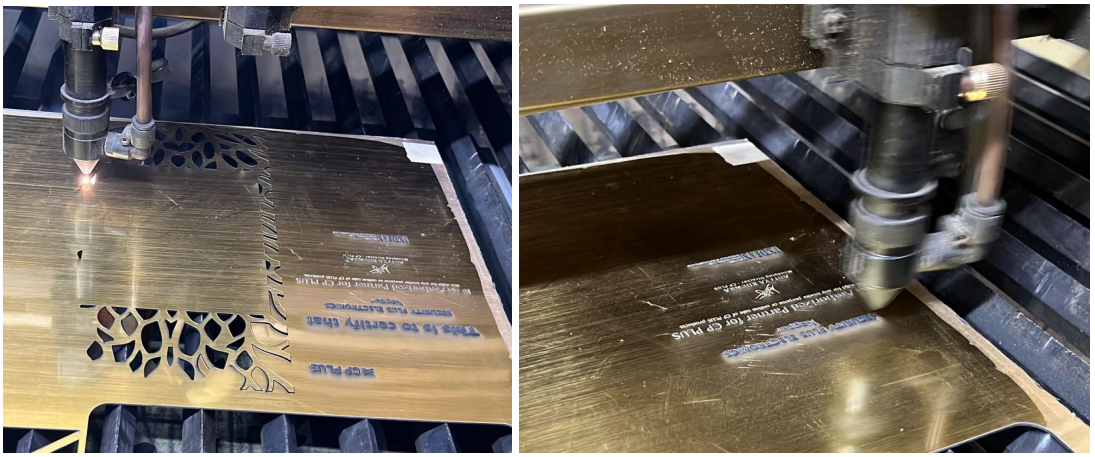

Fig. 20 Engraving and cutting of Certificate

e. Cleaning and color filing (intaglio): Once the cutting and engraving is done, the cleaning of the product starts. Once the cleaning is done, color filing starts. Here we fill colour in the red acrylic which is also called intaglio.

Fig. 21 Cleaning and Color Filling

f. Assembling: After all the parts are ready, the assembling of all the layers are done. The very first and base layer is MDF after that the Acrylic sheets are placed and then the red acrylic piece is placed on the top.

Fig. 22 Assembling of Certificate

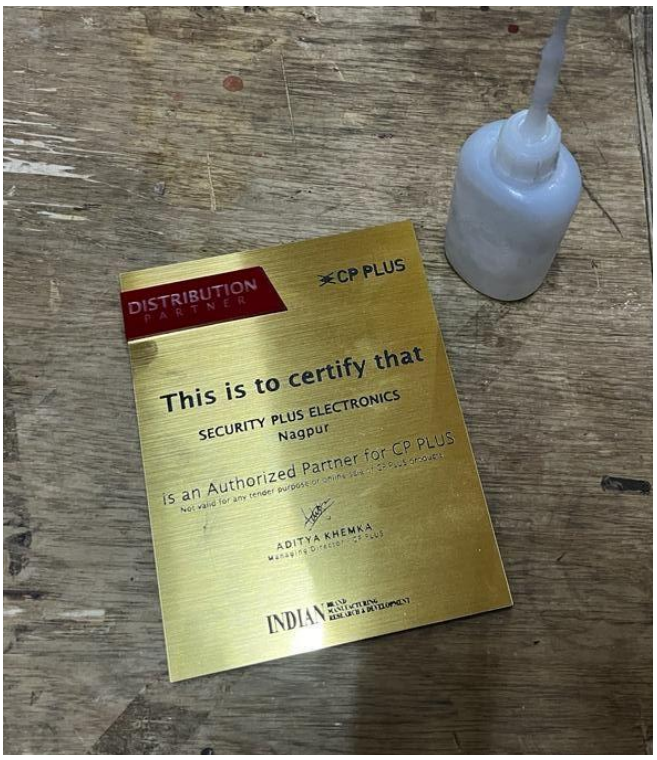

Fig. 23 Assembling of Certificate

g. Packaging: Once the product is ready, we come to the packaging part. Here we pack the product with safety so that it doesn't get damage while delivery.

Fig. 24 Final Product in Platinum

Fig. 25 Final Product in Gold

Conclusion and Discussion

By application of above methods the following progressive results were observed:

- The reach of page increased from 500 to 1,000.
- The interaction on posts and reels was increased by 60%
- The profile of Instagram page was Aesthetically improved and now is more eye soothing
- The brand got better recognition.

REFERENCE

1. *https://www.instagram.com/thesparklingtree/?igshid=YmMyMTA2M2Y%3D*
2. *https://www.indiamart.com/thesparklingtree/*
3. *https://m.facebook.com/people/thesparklingtree/100063872476665/*
4. *https://www.centuryprowud.com/mdf*
5. *https://www.hsglaser.com*
6. *https://www.linkedin.com/company/cpplusworld/?originalSubdomain=in*
7. *https://www.cpplusworld.com/software*
8. *https://www.flipkart.com/search?q=krishna+die+works&as=on&as-show=on&otracker=AS_Query_HistoryAutoSuggest_1_11_na_na_na&otracker1=AS_Query_HistoryAutoSuggest_1_11_na_na_na&as-pos=1&as-type=HISTORY&suggestionId=krishna+die+works&requestId=62c94ec3-2d89-41c4-9d3d-262c01b25fa7*
9. *https://www.instagram.com/one_cord/?igshid=YmMyMTA2M2Y%3D*