

Report On

"Value Chain Analysis and Product Development of Avery Dennison"

Submitted To:

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Declaration

This document is a working paper version and can be used by the author(s) as a partial fulfillment to the degree requirement in the BRAC Business School (BBS), BRAC University. The paper is an output of the research project entitled "Value Chain Analysis and Product Development of Avery Dennison" administered under the supervision of Dilruba, Assistant Manager, Avery Dennison Bangladesh and. The paper has not been peer-reviewed or been subject to review by the editorial board of the sub-project management. The views expressed herein are those of the author(s) and do not represent the views of the sub-project management or any of the institutions related to this sub-project. Responsibility for all errors and misrepresentations rests with the author.



Letter of Transmittal

Date: 22nd July 2019

Riyashad Ahmed Assistant Professor, **BRAC Business School**

BRAC University.

Subject: Submission of internship report on "Value Chain Analysis and Product

Development of Avery Dennison".

Dear Sir,

With due respect and great pleasure, I would like to submit my internship report which is a mandatory requirement of the MBA program. I have prepared a research paper on "Value Chain Analysis and Product Development of Avery Dennison" to fulfill the requirement of internship program. This topic has given me a great opportunity to combine the theoretical knowledge with practical experience. Now I would like to submit the report on my internship program covering almost all my activities at the Product Development Process at Avery Dennison where I have conducted my internship program with your kind supervision.

I have tried my best to prepare this report in a proper way despite some limitations. I hope you will find this research paper a meaningful one. I also expect that proper assessment will be given on my report considering the limitations I have faced while preparing this report. Within the time limit, I had to prepare this report as comprehensible as possible. But there may be some unwanted mistakes for which I beg your kind consideration.

Sincerely yours,

Sk. Tashdid Ur Rashid

ID: 17264089

BRAC Business School



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Chapter – 1

(Introduction)



1.1 Background of the study:

For completion of the Master of Business Administration (MBA) program successfully, every student of BRAC University must accomplish a three months of Internship program. Referring to an attachment with an organization under the observation of a supervisor in the organization, the Internship program refers to an attachment with an organization under the observation of a supervisor in the organization. In addition, a faculty from the university is also endorsed as an advisor for each of the student who provides guidance, help and support to the student regarding his/her learning process and repot preparation. I got the opportunity to do my internship in a multinational company which is Avery Dennison Corporation. Under the proper guidance of my organizational supervisor, Afroza Ahammed (Manager, Customer Services), I have conducted my study on "Value Chain Analysis and Product Development of Avery Dennison". My faculty supervisor Riyashad Ahmed, BRAC Business School (BBS), BRAC University, also approved the topic and authorized me to prepare this report as a part of the fulfillment of my internship requirement and gave me proper guidance and assistance over time.

1.2 Objectives of the Study:

Broad Objective: The Broad or General Objective of this report is to have a thorough
understanding about the production which is supposed to contribute to the enhancement of
contribution as a Customer Services officer of the company.

• Specific Objectives:

- 1. To understand current Procurement and Production process
- 2. To find out the multiplicity of the process imparted to the people in different functional areas of the organization
- 3. To know the employees, view and opinion about the process
- 4. To suggest some recommendations for the improvement



1.3 Methodology:

- **Primary:** I collected the primary information used in this paper through face to face interview, observation and by participating in the recruitment process directly along with a survey amongst the employees of different departments.
- Secondary: The secondary information was collected from website, magazine, memorandum, journals, internal database and some other relevant sources. Both primary and secondary data sources were used to generate this report. Primary data sources are scheduled survey among the employees of the different departments of the organization, informal discussion with professionals' and observation while accomplishing day to day jobs. The secondary data sources are website, different published reports, manuals, different publications of "Paxar/Avery Dennison"

1.4 Scope of the study:

This report describes the production process in terms of theoretical point of view and the practical use. The study will allow learning about the steps, process and procedures regarding product development. The study will also help to learn the practical procedures followed by the leading organizations. Moreover, the study will help to differentiate between the practice and the theories that direct to realize how the organization is recruiting. Lastly the report contains many suggestions which will provide the opportunity to find out the ways to make the production process more effective and efficient.



1.5 Limitations of the study:

The collection of information was the main limitation of the study, because most of the information was confidential. So, neither the organization nor the employees want to disclose those. It was also a biggest challenge as I had to make a complete qualitative research paper. Moreover, many of the employees form the different departments were not entirely aware of the overall product development process which made the information collection process more difficult. Time constraint was also a major challenge for preparing the report given by the organization because besides preparing the report as an officer I had to work like as an permanent employee.



Chapter – 2 (Organizational Overview)



2.1 Paxar/ Avery Dennison:

Paxar Corporation is a global leader in providing innovative merchandising systems for the retail and apparel industry. It is doing business in more than 75 countries all over the world. In Bangladesh it is operating as a subsidiary of Avery Dennison Corporation.

Avery Dennison was originally founded in Los Angeles, California, in 1935 as Kum Kleen Products, a partnership of Mr. and Mrs. Ray Stanton Avery. The name was changed to Avery Adhesives in 1937. In 1946, the company was incorporated as Avery Adhesive Label Corp., and the name was subsequently changed to Avery Adhesive Products, Inc. in 1958 and to Avery Products Corporation in 1964. The name was changed again to Avery International Corporation in 1976, and it became Avery Dennison after the company merged with the Dennison Manufacturing Company in 1990.

Avery Dennison Corporation (Avery Dennison) is engaged in the production of pressure-sensitive materials, and a variety of tickets, tags, labels other converted products, and office and consumer products. Some pressure-sensitive materials are sold to label printers and converters that convert the materials into labels and other products through embossing, printing, stamping and die-cutting. The Company operates in two segments: Pressure-sensitive Materials and Retail Branding and Information Solutions. Some are sold by the Company in converted form as printable media, tapes and reflective sheeting. It also manufactures and sells a variety of office and consumer products, other converted products and items not involving pressure-sensitive components, such as binders, organizing systems, markers, fasteners and business forms, as well as tickets, tags, radio-frequency identification (RFID) inlays and labels, and imprinting equipment and related services for retailers and apparel manufacturers.

PAXAR/AVERY DENNISON is generating new ideas, creating new products, making sales, purchasing raw materials and components, producing goods and providing service to Paxar/Avery Dennison's customer. Within the Distribution phase of the retail supply chain; Paxar/Avery Dennison can handle Global Data Distribution, Security Solutions and Inventory



Tracking needs. And to the final sale at the Retail In-Store level, Paxar/Avery Dennison offers Inventory Tracking System, Retail Control Systems, and Pricing Systems to meet the needs.

As a global leader, Paxar/Avery Dennison always comes up with innovative merchandising system for world known retailers. PAXAR/AVERY DANNISON objectives are to compete aggressively but fairly, deliver one-stop shopping to its customers "from concept of check out" and provide value to its shareholder. In Paxar/Avery Dennison everybody is treated as equal irrespective of his or her job responsibilities and designations.

2.2 Vision, Values & Activities:

Vision:

At Avery Dennison, our businesses are unified by the shared vision of making brands more inspiring and the world more intelligent. Throughout the world, we focus on making products more engaging, brands more compelling, inventories more productive, information more valuable and our surroundings more understandable. From apparel branding to food and beverage packaging, building graphics and traffic safety signs, we play a powerful part in everyday life.

Tagline:

To make every brand more inspiring and the world more intelligent.

Values:

Avery Dennison conducts their daily business according to six core values. These values are described accordingly.

- <u>Integrity:</u> It's never wrong to do right by a customer or employee. We put integrity, standing behind our products, and the welfare of our employees ahead of all other issues.
- <u>Service:</u> The deployment of Enterprise Lean Sigma demonstrates its power to inspire, motivate and accelerate continuous improvement resulting in new ways to eliminate waste, improve productivity and enhance customer service.



- <u>Teamwork:</u> Avery Dennison has become an industry leader by promoting teamwork. We are dedicated to helping our customers, our partners and ourselves succeed.
- <u>Innovation:</u> In 1935, Stan Avery built the first self-adhesive label-making machine in a 100-square-foot loft above a nursery in Los Angeles. This invention -- plus his invention of the first die-cutting method, in-line machinery and rotary die --helped pioneer a new industry.
- Excellence: For the past 23 years, Avery Dennison's Leadership Excellence employee awards program has recognized more than 550 employees for exemplary fulfillment of the Company's strategic priorities of growth, productivity, people, values and ethics.
- <u>Community:</u> Avery Dennison employee community teams in offices around the globe identify and implement giving and volunteerism opportunities on a local level.

Activities:

Paxar/ Avery Dennison Corporation is a global leader in providing innovative merchandising system to retailers and apparel manufacturers. The company's business includes the design, manufacture and distribution of a wide variety of tags and labels, including bar-coded labels, as well as printers and the associated suppliers for customers who prefer the flexibility of creating labels and tags on an "as-needed" basis in their facilities. Paxar has core competencies that range from graphic design to coating, weaving, and design of mechanical and electronic printers, systems integration, and creation of software.

2.3 Location of Avery Dennison:

Avery Dennison is now serving the major portion of the world by its distinguished. The location of the company's customers is provided below:





Location Map of Avery Dennison

2.4 Types of product:

Paxar/Avery Dennison is a part of the garments industry manufacturing the labels of the garments. They are in the business of manufacturing different types of label

Litho	Flexo	Rotary	Thermal	Woven
 Promotion al tickets Swing tickets Tickets Tags Inside card Over rider Hanger tag Book label Price ticket 	 Hook Label (HK) Hanger Label (HL) Hanging Promotional Labels (HPL) Blank Transit Label (TRL) Blank Unit Price Label (UPC Blank) 	 Fabric Label or Care Label Size Label Age Label Two Ups Book Style 	 TRL (Transit Label) BEL (Box End Labels) UPC (Unique Price Labels) ONS Tags 	 Damask Label Taffeta Label (B&W Background Color) Satin Label

RFID: Apart from the above products there is a special product on which the company is a global leader and the product is RFID (Radio Frequency Identification). As a global leader in RFID, our track-and-trace technologies can help accelerate inventory process speeds, prevent losses and improve efficiencies throughout the stages of our customers' supply chains. Healthcare facilities, factories, libraries, airlines, retailers and document management services are just a few of the industries that have enhanced the effectiveness of their operations with our RFID solutions.



Some Products of Avery Dennison



2.5 Strength and Weakness of the organization:

The strength and weakness that helps the organization to draw the future plan of the business entity. The company runs SWOT analysis to update the organizational strategy.

Strength:

- <u>Value & Ethics:</u> Values and Ethics are strictly followed by the employees of Avery Dennison. The terms are introduced with the consideration of the organizational environment and structure.
- **RFID:** As a global leader in RFID, its track-and-trace technologies can help accelerate inventory process speeds, prevent losses and improve efficiencies throughout the stages of our customers' supply chains.
- <u>Market Leader:</u> Avery Dennison is the market leader in the respected sector in Bangladesh. Almost all the top-ranking local garments and branding textiles companies are the dependent on PBL for their world standard service.

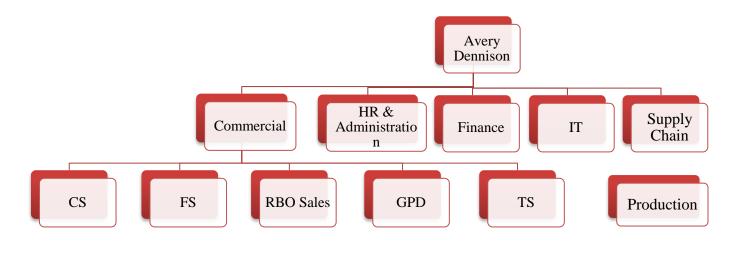
Weakness:

- <u>Documentation:</u> In Bangladesh the local customers are willing to have an urgent delivery with a short time period. But the company is not able to deliver the goods without documentation with the system support. So sometimes the company loses the local customers from their update services.
- <u>Time zone:</u> Paxar Bangladesh Limited is interlinked with the practices of Avery Dennison. Because of regional operational conflict they have to face difficulties reporting with the parent company.



2.6 An overview of the Department:

Avery Dennison has different activities around the world however in Bangladesh this company basically operates on the foundation of RBIS (Retail Branding information Solution). All the departments here work based on RBIS. There are several divisions among which the activities of Avery Dennison are divided. The organization follows a horizontal hierarchy for the ease of decision-making process and minimization of complexity. Currently the functional departments of Avery Dennison are Commercial, HR & Administration, Finance and IT. The Commercial Division is consisted of five more departments such as Customer Service (CS), Factory Sales (FS), RBO Sales, Global Product Development (GPD) and Technical Sales (TS). For a better overview a précised organ gram is given below:



Organogram of Avery Dennison's Functional Departments

Apart from these departments there are some sub units in each department. On the other hand the organization has three different levels like Top level posts, Mid-level posts and Entry level posts based on authority, responsibility, technical skills, qualifications, functional knowledge, experience, expertise etc. that the position requires. As an officer I work in the Customer Services under Commercial Department. Basically, the department has three wings. One is



United States, one is for United Kingdom and another is Marks & Spenser. These teams are divided based on the RBOs and brands located in these regions. Besides the Administration itself is an individual unit that looks after the facilities like arranging transports, recreation, sports etc. The diagram of the Customer Services is given below-

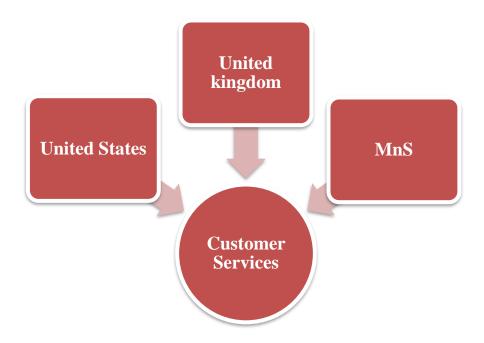


Diagram of Customer Services in Avery Dennison

In Avery Dennison Mr. Ishrar E khoda possess the position of the Head of Department of Customer Services Department. In the Customer Services team there are more than two hundred people including me. The members are Afroza Ahammed, Manager, Customer Services, Ms. Nusrat Jahan, Manager, Customer Services. Lastly I have been working in the position of officer as a helping hand of the GAP team under the US team under the super vision of Afroza Ahammed.



<u>Chapter – 3</u> (Job Description)



3.1 Job Description:

Avery Dennison does not treat its officers as juniors or less important part of the organization, but this company treats its officers as important parts of this firm. It provides the opportunity to explore the real business & professional world to the officers of this organization. It also offers learning by doing culture for officers. So as an officer of Customer Services department, I do jobs that are usually done by any other senior employees of the organization.

The basic job the position of officer, Customer Services is to process orders using different electronic software like Oracle, D2COM, OIMA, Layout tracker etc and continuously communicate with the Customer, Sales personnel and CNF agents so that the ordered goods are prepared and delivered in correct dimension, form and material in correct quantity in right time.

I have already processed orders for Paper labels and stickers and tags, Heat transfer labels, Woven labels and printed fabric labels. Each of these types has different complex order processing procedures. Each item has different label reference and different criterions. A CS needs to keep these in mind and process the order.

It's the responsibility of a CS to collect the payment by sending Proforma Invoice and Sales contract to the customer and make the CNF agent deliver the goods after the payment is received.

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<u>Chapter – 4</u> (Product Development Process)



4.1 Product Development Process of HTL:

As there are different product lines here like PFL, Offset, Woven, Heat Transfer, Thermal, Digital, the production phase is a huge area to discuss and cannot be covered in such a short while.

So I am describing the product development process of Heat transfer label here.

A Heat Transfer Label is a label that is made of ink, adhesive (printed or powder) carrier (paper or film) which is pasted on different types of stretchable and non-stretchable fabrics using certain amount of heat and pressure for a certain period.

Heat Transfer Label (HTL) is printed on garments maintaining three key factors:

- 1. Heat
- 2. Pressure
- 3. Dwell time

With the combination of these three, an image is released from carrier on the garment permanently.

This method is basically used for manufacturing labels for:

- Intimate wear
- Children's sport wear
- Sports wear

For printing the HTL, two basic types of films or plates are required:

- Mesh: This is a negative plate made of polyester.
- Carrier: This is a film made of paper.



HTLs are manufactured following the below manufacturing flow:

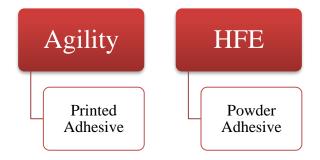




There are generally two types of adhesives used in process:

- 1. Powder coating adhesive (invisible)
- 2. Printed adhesive (visible)

There are two types in HTLs based on the adhesive type used:



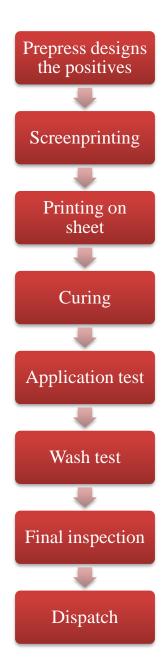
There are two types of cutters used here.

- Roll Feb.
- Single cut.

The digital printing is associated with the HTL. Digital printing is high definition printing. HTL starts with digital printing followed by screen print.

After the screen is printed it follows the following steps:







For production two different types of machines are used for two types of HTLs. And their production capacities vary too.



Again the raw materials for these two types of HTLs:

- MS14 for Agility reflective and Agility color reflective
- Gloss matte pet film for agility industrial.
- Hato paper for HFE

The colors on the labels are maintained following strict global color code. And this code is called the Panton code.

Several types of labels can be produced in HTL and they are of different qualities. And those are:





There are some main basic differences in Agility and HFE:



Agility

Printed Adhesive (visible)

Applicable for stretchable fabrics like nylon

More sustainable

More expensive

Multicolor labels can be printed here

Printer: ATMA

Raw material: Polyester Sheet

Temperature: 130°C-160°C

Dwell time: 12 seconds

HFE

Powder Adhesive (not visible)

Applicable for non-stretchable fabrics like cotton

Relatively less sustainable

Cheaper

Only single color labels can be printed here

Printer: AWT

Raw material: Hato Paper

Temperature: 163-177°C

Dwell time: 5 seconds



For developing any product for the first time it has to go to the designing under the Global product Development department. And for developing a new product GPD needs information about the:

- Color code
- Fabric composition

And other than the black & white labels, all the labels have to be developed first in GPD.

And there are different lead times based on the types of the labels.

• GPD Samples: 5 days

Production: 2 days

• Standard: 7-8 days

There are some mandatory and optional components for the development of HTL:

Product tye:Matte or gloss
 Color
 Color mixing recipe
 Original sample fromRBO
 Wash test: RBO standard
 Sretch test
 Rough test

For black and white labels, we don't develop samples. We just notify the operations team that we will precede with direct bulk or production.

For new colors we develop:

- 1. Color standard
- 2. Quality
- 3. Wash test from Customer Services
- 4. Fabric confirmation from customer



- 5. Fabric composition
- 6. Bonding side
- 7. Wash cycle depending on RBO

And no approved trim card should be sent by GPD before wash test. There are different types of wash tests for HTL too:

W

- 1. Wash test
- 2. Crocking test (to check color)
- 3. Bonding test
- 4. Aging test

Dwell time is the time between bonding and the releasing transfer on garment applying right temperature and pressure using air pressure applicator.

There are two types of bonding pressures:

- Air pressure
- Piston size

And their unit of measurement is pound per square inch.

Hot peels are those that can be peeled off right after application. And cold peels are those which need time to cool off the HTL. Backers on the other hand are those that are used as a background to see the label clearly. For this reason, the backer for white HTLs are black and the backer for black HTLs are white.

And release is the force required to remove the release liner from the face stock at a specified speed and angle.

Once after finishing the production the products are delivered only after the customer has made the payment in a proper way.



<u>Chapter – 5</u> (Finding and Analysis)



5.1 Value Chain Analysis:

The term value chain refers to the process in which businesses receive raw materials, add value to them through production, manufacturing, and other processes to create a finished product, and then sell the finished product to consumers. Its goal is to recognize, the activities that are most valuable to the organization (i.e. are the source of cost or differentiation advantage) to the firm and which ones could be improved to provide competitive advantage

In other words, Value Chain Analysis assesses what activities add value to the company to differentiate it and make it competitively advantaged.

In case of Avery Dennison, it achieved and maintains its competitive advantage through its product quality and service to its customers.



There are certain factors that add value to its competitive advantage:

Material	Buyer Subscribed (strictly maintained)
Designing and Finishing	• High quality
Ethics	Comply with regulations set by BEPZA strictly
Service	Best quality before and after sales services
Machines	Updated and new machines
Product Quality	More complicated designs and different languages
Color code	• Panton code
Quality control	Maintaining ELS and safety class for labor standard



<u>Chapter – 6</u> (Recommendations)



6.1 Recommendations:

The report has been analyzed to get to know the employees' perspectives and opinions about the current product development process of Avery Dennison. This report explains the total flow of production process that the company is currently following. It has been mentioned before that this process of Avery Dennison is one of the international standards. If we go through the tables, statistics, graphs and analysis we can see that there are both flaws and positive sides of the process. However, there is nothing called best hence this production process also needs some improvements for which an elaborated list of recommendations has been stated. The recommendations are basically given in light of every finding from the point of view of the employees, yet some general suggestions are also stated.

- Avery Dennison Bangladesh recently stepped away from the production process in needle loom which made it lose them certain customers. It was suggested by the employees that AD launches these machines again. This will enable them to get more customer and broaden the industry
- As Avery Dennison go by the global standards strictly set by BEPZA, it takes a bit longer time to fulfill those procedures and make the payment before delivering the product that its competitors. So, if the cycle could be shortened and the time required for that we would lose less customers who are in hurry and get more exposure.



<u>Chapter – 7</u> (Conclusion)



7.1 Conclusion:

Avery Dennison is one of the successful multinational companies in Bangladesh that has earned its success in short course of time. This is the leading organization in the Labeling and Packaging industry of the country that is serving millions of customers globally with its level best services. The human capital is the main asset for the company and The Human Resource Division plays an important role in the success of the organization and this department ensures hiring right people for the right positions of each department with attractive remuneration and motivation. In this report I have worked on the Product Development Process of Avery Dennison. It has been mentioned before that the Product Development process of the company is based on international standards and everything is done in BEPZA.

Through this study I have been able to understand about the practical knowledge of production in this big organizations and how the employees can motivate the company to change the process positively. This report has helped me to get a thorough idea about working professionally and this will help me to grow in my future endeavor. In brief it can be said that despite of having some flaws in their production system Avery Dennison is following one of the effective ways to manufacturing products and working on this report has also enabled to discover the actual scenario of the professional production environment.



<u>Chapter – 8</u> (Bibliographies & References)



8.1 Bibliographies, References and Sources:

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Chapter – 9

(Appendix)



Questionnaire

The following is a questionnaire on the topic titled "Heat Transfer Label Production Process of Avery Dennison". The survey basically tries to identify and assess the competence of the production process. Please take some time form your busy schedule (max 5 minutes) to fill up this questionnaire. The survey is intended for academic purpose along with the fulfillment of the successful completion of my Internship.

- 1. What is Heat Transfer Label?
- 2. What are the products we manufacture using this method?
- 3. What type of films and plates are needed for HTL printing?
- 4. What is the manufacturing flow of HTL production?
- 5. What are the different types of machines do we have in this department and what are their individual capacities and limitations?
- 6. What are the different types of raw materials used for this printing method?
- 7. What is the color matching procedure?
- 8. What HTL quality products can we produce in Avery Dennison BD?
- 9. What are the mandatory and optional components for developing HTL?
- 10. What is the production lead time for these products?
- 11. What are the different types of that is carried out for HTLs and what do these tests determine?
- 12. What are the key points that need to be looked at when approving a HTL?
- 13. Meaning of following terms:
 - i) Dwell time



- ii) Bonding pressure
- iii) Hot peel
- iv) Cold peel
- v) Backer
- vi) Clear coat
- vii) Release

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