



Internship Report
On
**“Importance of Tobacco & Wrapping Material Wastage
Management in Secondary Manufacturing Department”**

Course Name: Internship

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Subject: Submission of Internship Report on “Importance of Tobacco & Wrapping Material Wastage Management in Secondary Manufacturing Department”

Dear Sir,

With utmost respect, it is a great pleasure to submit my internship report of the three-month long internship program completed at British American Tobacco Bangladesh under Operations Department's SMD (Secondary Manufacturing Department).

I have put my paramount effort to make this report a meaningful and successful one. I took this report as an opportunity to reflect my learning about the whole scenario of corporate life, organizational policy, internal work environment, and different aspects of Operational functions.

I look forward to making the best use of my knowledge that I have gained from this Internship.

I would like to express my sincere gratitude to you for your kind guidance & suggestions in preparing the report. I would like to apologize for any mistakes that I have made during preparing this report. If you need any further clarification for any part of this internship report, I would eagerly provide the informational details you want to know.

With best regards

Mahmud Ullah Khan

Student ID: 14304065

Letter of Endorsement

The Internship Report titled “**Importance of Tobacco & Wrapping Material Wastage Management in Secondary Manufacturing Department**” has been submitted, to BRAC Business School, for partial fulfillment of the requirements for the degree of Bachelor of Business Administration, major in Finance from BRAC University on 13 th December, 2018 by Mahmud Ullah Khan, ID: 14304065. The report has been accepted and may be presented to the Internship Defense Committee for evaluation.

(Any opinions, suggestions made in this report are entirely that of the author of the report. The University does not condone nor reject any of these opinions or suggestions).

- Mr. Shamim Ahmed

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ACKNOWLEDGEMENT

In preparing the internship report on my three months long experience with British American Tobacco Bangladesh, firstly I would like to convey my utmost gratitude to my academic supervisor Mr. Shamim Ahmed, without his kind direction and proper guidance this report would not have been possible

I also would like to show my deepest appreciation and gratitude to my line manager Mr. Nafis Hussain and my Supervisor Mr. Chowdhury Ahad Ibne Alamgir who helped me to understand the basics of the business. He supported and guided me throughout my internship journey. I thank him for putting his trust on me with real tasks which gave me the opportunity to play an active role in British American Tobacco Bangladesh.

I also would like to thank each and every one of my fellow colleagues of British American Tobacco who gave me their valuable time and enough information to help me successfully complete this report.

Throughout my last three months as a part of my role in British American Tobacco I got to meet many people from different backgrounds and professions. I would like thank each one of them for their valuable contribution in making my internship program a successful and memorable one.

Executive Summary

As one of the leading and prominent multinational companies not only in Bangladesh but also globally, British American Tobacco has always been considered as one of the best employers. British American Tobacco is constantly innovating and producing world class products to satisfy their consumers.

At the very beginning of the report I have given an overview of British American Tobacco Bangladesh and its history. It will give the readers a clear idea about British American Tobacco Bangladesh's legacy and its mission and vision.

In the next part, I've given the objectives of writing this report. I've mentioned the scopes of learning, limitations that I've faced. This part also contains the methods that I used to collect the required data.

In the next part I have given a detailed overview of the Integration Work System (IWS) of BATB specifically in the secondary manufacturing department of the organization. It also consists of how Wrapping Materials are managed and what measures are taken to reduce the amount of wastage. This was my main concentration of my internship program. Managing the WM wastage materials is a key concern of SMD (Secondary Manufacturing Department).

The Findings, Recommendations and Conclusion are given in the end of this report. I've recommended some measures that can be taken to minimize the amount of WM wastage.

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ORGANIZATIONAL OVERVIEW



**BRITISH AMERICAN
TOBACCO**
BANGLADESH

Brief timeline of British American Tobacco (Global)

❖ 1902

At the beginning of the 20th century, USA's the American Tobacco Company & UK's Imperial Tobacco Company formed a joint venture.

❖ 1904-1911

Due to excessive demand of tobacco products, British American Tobacco expanded their operation in regions such as Caribbean's, Indian Sub-continent, Scandinavia, South-east Asia, East Africa and others.

❖ 1905

Acquired "Maspero Freres Company", A Cairo-based cigarette manufacturer. It ensured export of cigarettes to Indian Sub-continent and Europe.

❖ 1910

Annual Cigarette Sales; More than 10 Billion Cigarettes.

❖ 1911

British American Tobacco was listed on the London Stock Exchange

❖ 1915

Annual sales reach a landmark. With the demand of cigarettes from Armed Forces, Sales touch the baseline of 15 Billion per year

❖ 1927

On the 25th Anniversary, British-American Tobacco Became the leading Tobacco Company of the Great Britain. At that point, they had 120 Subsidiaries.

❖ 1932

Leaf Farms and Manufacturing Plants are established in India, China, Brazil and Nigeria.

❖ 1942

Profits went down from 5.5\$ million to 3\$ million and would remain the same till the end of WWII.

❖ 1953-1955

Measured by profit, British American Tobacco was ranked 3rd in England, France And Germany.

❖ **1966**

For the first time in history Company profits exceeded £100 million by the acquisition of cigar manufacturer Henri Wintermans by BAT.

❖ **1994**

BAT enhanced its portfolio by adding the prestigious Lucky Strike and Pall Mall brands to the portfolio.

❖ **1998**

British American Tobacco becomes a listed company on the London Stock Exchange

❖ **2013**

First E-cigarette Vype launched in UK

❖ **2017**

Reynolds American Inc. was acquired by BAT to increase its market shares ("British American Tobacco - Our history – a timeline", 2018)

British American Tobacco Bangladesh

British American Tobacco Bangladesh (BATB) is a part of British American Tobacco plc which is operating in more than 200 countries. Back in the 1910, British American Tobacco was named as Imperial Tobacco which set up its first sales depot in Armanitola in Dhaka. Moving forward, after the partition of India in 1947, emergence of Pakistan Tobacco Company took place in 1949. The first factory in Bangladesh was established in Fauzdarhat in Chittagong. As time progressed, the second manufacturing unit was inaugurated in Mohakhali, Dhaka. Soon after Bangladesh received its independence in 1972, the company was named as Bangladesh Tobacco Company which later transformed to British American Tobacco Bangladesh in 1998.

Mission and Vision

Vision

Satisfying Consumer Moments: BAT Bangladesh's vision, mission and strategic focus are in accordance with the BAT group. BAT believes in customer satisfaction; hence

we offer wide range of products starting from to premium quality brands in order to cater customer needs closely. BAT aims to incorporate new ideas in their strategic planning and implement them in their production to satiate the ever-evolving consumer demand. Customer satisfaction is regarded as the primary objective which needs to be addressed and taken into cognizance. BAT Bangladesh believes that serving the customers right results in long-run growth of the company which eventually makes it the market leader.

Tobacco and Beyond: The second part of the vision puts focus on the strength of their traditional tobacco business and the existence of opportunities in their Next Generation Products. It is believed that there is scope for further growth as consumers look for choices and product categories where BAT can succeed through development of unique products.

Vision 2020 of British American Tobacco Bangladesh

Vision 2020 of BATB entails, “By ensuring best process and by engaging best people we want to be a world class operation and we want to make our revenue twice as big within the year 2020”

Mission

Champion informed consumer choice: in order to avoid risks associated with health, it is imperative that consumers purchasing these products are well aware and informed about the adverse effects of health hazards. Leaving the choice up to consumers after being well equipped with information is regarded as one of the missions.

Delivering our commitments to society: ever evolving society requires the initiation of products which will suit more to their needs. Hence, it is essential to take up new challenges and exploit potential to offer wider and better-quality products to customers. It is recognized as a prominent international business due to which better responsibilities need to be undertaken, for instance; developing less risky products, being clear and precise about the risks associated with all the products, supporting agricultural communities and to reduce the detrimental effects on the environment.

Strategic Focus

BATB’s all business strategies are built upon the strategic focus areas. Strategic focus areas work as the foundation of their business decisions. They continue to concentrate on

their activities in all four focus areas and constantly review their ways of working. According to BATB website “Growth requires understanding and delivering enjoyable consumer moments. Resources should be effectively deployed to increase profits and generate funds for better productivity. Winning organizations consists of great people, great teams and a great place to work. Ensuring a sustainable business that meets stakeholders’ expectations is another part of our strategic focus.”

Brands Offered by British American Tobacco

BAT has hundreds of brands globally but they manufacture and sell few brands. BAT doesn’t advocate adults to smoke rather they try to satisfy the demand of those who chose to smoke.

Premium Tier (Benson & Hedges Lines)

Benson & Hedges- a premium brand targeted towards the high-income group has successfully retained a significant portion of the market share held by BAT Bangladesh and has upheld its competitiveness since its inception. To add more to the list, in 2012, the House of Benson & Hedges launched B&H Switch which became the first capsule cigarette to be launched in Bangladesh.

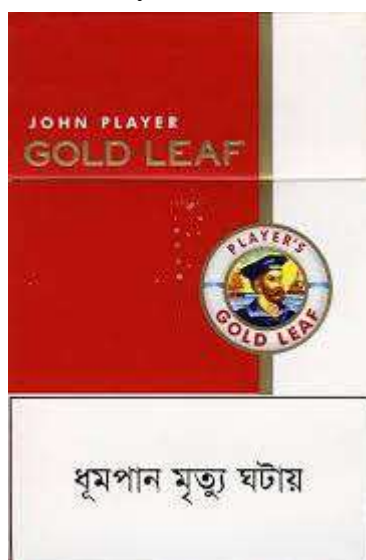
Moving forward, BAT has come up with its new B&H Platinum which has once again left a noticeable mark in the industries producing premium tobacco items.



High Tier (JP Gold Leaf, PallMall and Capstan Lines)

The aforementioned brands are positioned in the Aspirational Premium Segment.

John Player Gold Leaf which was launched in 1980 became one of the best-selling brands in the aspirational segment. The production of Pall Mall has been stalled due to some confidential reasons but BATB is planning on reintroducing this line of cigarettes soon. Capstan has a narrow customer base in Bangladeshi market.



Medium Tier (Star Lines)

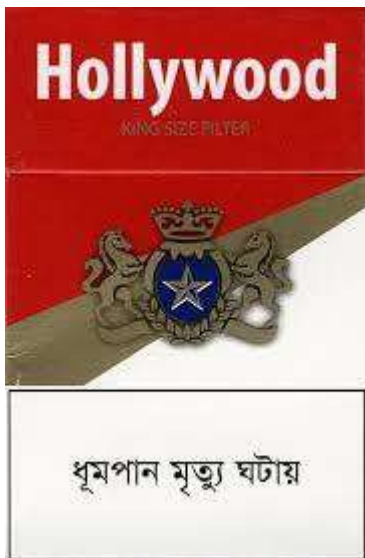
Star and Star Next are positioned in the value for Money segment. Star was first introduced in 1964 and Star Next was launched in 2012. Star Next is one of the highest selling brands in Bangladesh. In this VFM segment this brand does not have any real competition. Consumers in this segment are considered to be of significant number.



Low Tier (Pilot, Hollywood and Derby)

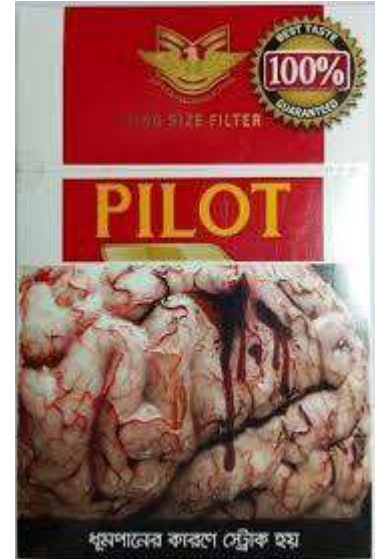
In the low segment we have three brands and they are – Derby, Pilot & Hollywood.

Derby was launched in 2013 and is the biggest brand among the three. Through two variants it is offering taste differentiation to the consumers. Pilot is well known for its different and authentic smoke. Pilot was introduced in 2009. Currently it is the fastest growing brand in the industry. The third brand is Hollywood



which was launched in 2011. Despite in the face of fierce competition, the three brands have gained high market share. Most consumers revert to purchasing low segment tobacco brands from BAT

relative to their competitors. ("British American Tobacco Bangladesh - Our brands", 2018)



Seed to Smoke Process

- **Raw Tobacco Leaf Growing:**

In different farms in Kushtia, Chittagong and Rangpur Registered farmers of BATB cultivate and grow raw tobacco leaves

- **Leaf Processing:**

In the Green Leaf Threshing (GLT) plant raw tobacco leaf is processed. Stern is separated from leaf here for further use. This processed leaf is delivered to the Manufacturing Plant in Dhaka Cigarette Manufacturing Primary Manufacturing department (PMD) receives the processed leaves and cut leaf to produce cut tobacco as the final ready to use tobacco for cigarette. Then that cut tobacco is sent to the Secondary manufacturing Department (SMD) where all the packaging materials and other materials of cigarettes are converted into finished ready to use cigarettes.

- **Distribution:**

Finished package goods are then sent out to different distribution centres across the centres. Trade marketing team of BATB then send the goods to the distributors using the sell representatives. Distributors then distribute the goods to the retailers to make the goods available for the consumption of the end users.

- **Branding:**

As any kind of promotional activity for Cigarette is banned by the government so BATB continuously try to innovate and come up with effective below the line marketing ideas to maximize brand awareness and brand visibility.

INTRODUCTION



**BRITISH AMERICAN
TOBACCO**
BANGLADESH

Introduction

British American Tobacco Company (BAT), founded by James Buchanan Duke in 1902, is one of the most renowned top tobacco companies around the globe. Along with owning approximately more than 200 brands sold in their portfolio, they also operate in about 180 countries including Bangladesh, Pakistan, and Myanmar etc. The company employs more than millions of tobacco farmers, shareholder etc.

British-American Tobacco have been operating their business for more than a century. This British international cigarette and tobacco manufacturing company started their journey on 1902 and through masterminds, hard work and creative initiation, today on the London Stock Exchange they have been listed one of the top 10 companies.

Bat operates their business not only globally but also locally, The Headquarter of BAT is located in London, United Kingdom. However, in order to have better business and understanding, they have set local offices in all the countries they operate their business. The one set in Bangladesh is name British American Tobacco Bangladesh (BATB); which is a subordinate of the main group. BATB was first set up in 1972. It was first known as Bangladesh Tobacco Company (BTC). Despite the healthy controversy of tobacco and cigarettes, BATB has been successfully maintaining their social image and contribution. From the starting point of business to till this date, BATB is one of the leading business brands in Bangladesh they are remarkably in the leading position in the tobacco industry of Bangladesh along with providing many local brands. A major amount of the revenue of the Government of Bangladesh comes from the Tax payed by BATB; which makes them the highest tax paying company of this country.

In a data from 2017, it has been reported that more than 70,000,000 people in Bangladesh consume tobacco; which makes the country one the most leading tobacco consuming countries around the world. Needless to say, for the very reason BAT has their major markets and profits here in Bangladesh. The company produces about 19 million cigarettes in Bangladesh. To expand their business the company has established one of the biggest manufacturing and production plants among all the groups located around the world.

Due to the variety in portfolio product, business ethics and integrity, increasing consumer's need, high quality products, and social contribution, the prosper and fame of

BATB is uprising in the aspect of business industry. The owners of this multinational organization know that to continue success, along with the consumers they have to make sure the satisfaction of the shareholders and the stakeholders.

Origin of the Report

As requirements set by BRAC University, this report is the ultimate output of my three months long experience with British American Tobacco Bangladesh (BATB). This report is based on my sole observation, involvement, experience, understanding as well as the information gained from the other employees.

I worked under the operations department of this company. In the first month, I was a part of the Secondary Manufacturing Department (SMD). In this department my job was to assist people with their daily work-related activities so they can get a clearer picture about their exclusive production system known as Integrated Work System (IWS).

Scopes of Learning:

The main purpose of the internship program is to acquire the practical knowledge and get a proper guideline on how things are done in an organization. I would like to highlight some of my major scopes of learning I got in the three months journey of working in BATB:

Enhance my job skills: As mentioned before internship programs are all about gaining practical knowledge and as an intern in BATB I got the perfect opportunity to know about its work environment which will definitely help me develop my job skills. Besides, now I know how to implement my education properly and all the learning from my University courses are taking a meaningful shape now.

Built connection: Throughout the journey I have come across many excellent people. I have made friends and created an extraordinary bond with other interns and colleagues. Moreover, it helped me to connect with the people who works in BATB and I hope they will work as a guideline for my future career building.

Getting to explore new area of work: Being a finance major student it was completely a new experience for me to work in “Operations”. Although I faced many difficulties but at the end of the day, I can say that, I am very delighted to learn a new thing and I believe it added some extra value to my work experience.

Getting to know BAT better: We all know BAT is world's leading tobacco brand and working as an intern there for three months got me an overall idea about how the organization runs their operation.

Limitations:

Working as an intern in BATB I encountered some challenges. Even though I took them as a part of my learning and tried to overcome those but some of the unavoidable circumstances worked as a barrier for me. They are mentioned below:

Coping in a new area: Although I'm very glad that BATB got me a chance to learn new things but It was really very hard for me to cope there. In the very beginning I did not understand a thing and ended up feeling myself worthless. My learning about market almost didn't come to any use in operation area. Starting with the daily DDS report making to working with the modules, I had to do a lot of things which I've never heard before and hence I had really a very hard time adjusting there.

Lack of desired guidance: It the very beginning my line manager used to give me directions of the work that needs to be done but being a finance student, I needed a much more attention to my problems regarding engineering terms. Besides, he expected me to understand all the projects in the blink of an eye and make it 100% error free. However, I expected a little more direction to my work and that would have made my work a lot easier. For instance, on my very first day I was asked to update the log defect handling log but I didn't even know what does that mean and got really frustrated about everything. However, gradually I started to understand everything and do things more efficiently.

Losing self-confidence: I was assigned to a long of work out of my area of study thus, the immense pressure got me frustrated about myself. I used to question my abilities and suffer from inferiority complex. Whenever I did any mistake my manager used to be inconsiderate about my feelings at times. Even though I got everything right my manager

most of the time never used to appreciate the effort and it was really hard for me to accept the fact. However, gradually I was getting my confidence back and tried to give my full effort on making my works better.

Not getting proper feedback: After I was done completing my assigned task, I used to hope for a constructive feedback on my work but most of time I was not told about in what way it could have been done better. It seemed very hard for me to figure out that by myself and work on that.

Not getting enough help regarding the report: While starting to work on my internship report I was needed some help from my managers and other employees who work there but they couldn't give me enough time. Despite of being an intern there, I had to rely on the secondary intimation from internet. So, it was really challenging to collect information all by myself.

Limited Information (Confidentiality): BATB is really very strict about their policies regarding disclosing information. Almost every information regarding the operation and their strategies are unique and difficult to disclose as it's out of their policy. Infected, while writing the report I could not write so many things just because that might hurt their company's policy. Also, as an intern we were not told most of the things simply because there were some legal restrictions on some information and considered as confidential. Therefore, it was really changing to make this report resourceful enough.

Hard to maintain a work life balance: As mentioned before it was hard for me understand most of the works hence, I had to give half of my time understanding and then start my work. Also, I had to make the reports are error free. As a result, I had difficulties regarding maintaining a proper work life balance. Not only my cell manger I used to get works from my process lead and maintainable lead. Therefore, most of the times I had to work almost 10-12 hours and it affected my mental health and the life outside of my work. Even it was really hard for me to manage time to give enough concentration on the report.

Controversies regarding tobacco industry: We all know tobacco industries are controversial and cigarettes have harmful effect on health. Working in this industry people sometimes tried to point out some bad effect of working there. Although I had my perfect logics to show them but it was challenging for me to face people with such mentality.

Objective of the Report

While I was collecting information to write this report, I learnt different aspects of BAT. I also gained knowledge and first-hand experience about how international workplaces operate. The experience and research have helped me think critically and rationally at the same time. Some other significant objectives of preparing this report on British American Tobacco Bangladesh (BATB) are listed below:

- To demonstrate a summary of British American Bangladesh (BATB).
- To evaluate the industry.
- To analyse the fundamental functions of BAT.
- To analyse the production system of IWS of BAT.

Methodology

To do a research thoroughly, collecting and organizing data is a key aspect. To conduct this study, both Primary Data collection (Personal Interview) and Secondary data collection method have been used. These data assisted me to achieve my desired result.

Primary Data

- **Personal Interview:** To know more about WM Wastage Management, I had interviewed several Cell Managers, Process Leads and Maintenance Leads. Among them, Nafis Hussain, Cell 1 Manager's input was most informative as he deals with WM Wastage Management in SMD. Most of the time, they gave me general brief about this issue, which I had to analyse and make a sense out of.
- **Group Discussion:** Though I was never able to arrange an official group discussion, there were several times when, I gathered some of the employees to discuss the "How's & About" of British American Tobacco's IWS.

Secondary Data

To get more information, which would be helpful in conducting the study, I Went to their web-site. I also collected data from their Annual Report, WM Wastage Management Reports, OEE &AMO Reports.

**WM WASTAGE MANAGEMENT IN SECONDARY MANUFACTURING
DEPARTMENT**



Integrated Work System (IWS)

Integrated Working System (IWS) was first suggested by Ernst and Young. Every large multinational operation has their own unique production system. For example, Toyota has TPS which stands for Toyota Production System. Just like that BATB has Integrated Work System (IWS) which is an organizational capability building strategy aimed at achieving and sustaining breakthrough business results through 100% employee ownership with zero loss mindset. The objectives of IWS are given below-

- Optimized operations
- High flexibility through zero setup time
- Zero Quality Defects & 100% Compliance
- Zero Unwanted incidents
- Zero non-value-added cost
- Just-In-Time Inventory

Secondary Manufacturing Department's Modules:

Secondary manufacturing Department (SMD) currently has 32 Modules. Modules are the machines that produce and package the cigarettes for shipment. A module usually has 4 Different parts; Maker, Linkage, Packer and Over-Wrapper. Most of the time, Packer and Over-Wrapper are considered as a singular part of the whole module

- **Maker:**

Maker is the part where processed tobacco, paper rod, filter and other raw materials are assembled and complete cigarette sticks are made. This is a very fast process. There are Decoufle 85, Decoufle 100, Protos 90, Protos 100. Decoufle 85 and Protos 90 makes 8500 cigarette sticks per minute. Decoufle 100, Protos 100 can produce 10000 cigarette sticks per minute. In the cigarette manufacturing process, processed tobacco, filter rod and wrapping materials are transferred to Cigarette making division to make a complete cigarette. These machines are run and operated 24 hours a day 7 days a week. There are four shifts. Green, Blue, Yellow and White. Per day three shifts cover the day. Per shift work for 8 hours. These machines are

never unattended. Two operators are always operating and maintaining the maker machines on rotation. When their shift ends, they hand over the responsibility of the machine to the operators of the new shift. This is how all the machines are always producing cigarettes.

- **Linkage:**

The machines that are used to connect the makers with the packers are known as linkage. Linkage plays a vital role in the manufacturing process as it delivers cigarettes from maker to packer for packaging.

1. **Tray Loader:** Complete cigarettes are then transferred to tray loader. Tray loader is an intermediary where complete cigarettes are loaded. Tray loader then deliver the complete cigarettes to tray unloader. HCF is the most used tray loader machine in SMD.
2. **Tray Unloader:** Tray unloader receives the complete cigarettes from tray loader. Then those complete goods are unloaded and transferred to packer for packaging. Magomat is the most used tray unloader machine.
3. **S90:** Soft link machines are mostly used in the SMD. Soft link machines transfer the cigarettes from maker to packer using tray loader and tray unloader. But there are few hard link machines in the SMD which are comparatively new. Those hard link machines directly transfer the cigarettes from Maker to Packer using the S90 machine. S90 machine can store 90 thousand cigarettes at a time.

- **Packer:**

From the makers complete cigarettes are then transferred to the packing machine. When cigarettes are transferred to the packing machine, it packs the Cigarettes with blanks and wrappers and make a complete packet of cigarettes. There are three type of packing machines in the factory. They are GDX2, GDX2NV and Focke. GDX2 machines can produce 360 cigarette packets per minute. GDX2NV is the new version. It can produce 420 cigarette packets per minute. Focke machines can

produce 500 cigarette packets per minute. Cigarettes are packed in two forms. 20s packets and 10s packets. 20s packets consist of 20 sticks and 10s packets consist of 10 sticks. Completed cigarette packets are consist of blank, inner frame, foil, package, EOD etc. Then complete cigarette packets are transferred to the wrapper.

- **Wrapper:**

Then complete packets are sent to the packet wrapper machine where tear ribbon, wrapping film and tax stamp are attached. Thirdly, it is sent to the outer wrapper machine to make 10 packets wrapping and then sent to outer machine. An outer consists of 10 cigarette packets. Then those outers are sent for final packaging. Finally, the packets are placed in CBC (Corrugated Box Carton) to make the final shipment to the warehouse. 50 outers make a CBC usually. CBC are then sent to the warehouse for shipment.

Key Performance Indicator (KPI):

The indicators which are observed to ensure the best possible outcome from the modules, are known as key Performance Indicators. The KPIs are set by Operations Management, based on the factors that directly affects the production capability of a module. There are several stages of KPI. Once a module reaches and exceeds the set target, it moves on to the next stage. These are called “Step-Up”. There are currently five Step-Ups in the SMD and only 5 out of 32 modules are in Step-2. All the indicators have a fixed Baseline and a Target. The indicators which are currently being focused on are:

1. Overall Equipment Efficiency (OEE)
2. Planned Downtime (PDT)
3. Unplanned downtime (UPDT)
4. Rate Loss (RL)
5. Quality Loss (QL)
6. Mean Time Between Failure (MTBF)

- **Overall Equipment Efficiency (OEE):** OEE shows how efficiently and effectively a module is performing. Every module a pre-set machine speed, at which the machine produces and packs the cigarettes. For instance, Decoufle 100, which is a maker, should be able to produce 10,000 Cigarettes/minute, given there is no interruption in production. GDX2NV, a packer, has the capacity to produce 420 packs of cigarettes every minute. However, due to various reasons, the machines fail to give the maximum amount of output.
- **Planned Downtime (PDT):** The modules in BATB SMD run 24 hours, 7 days a week, if all goes well. Nevertheless, to fix problems and defects within the machines, the management plans and works on the machines. These are known as Planned Activities and the loss incurred by these activities are known as Planned Downtime. Planned downtimes decreases OEE as it hampers the production process and minimize the total production. During these activities, cigarettes are produced to ensure the cigarettes that are beings produced are not defected. These test runs waste a hefty amount of materials.
- **Unplanned Downtime (UPDT):** Unplanned downtimes are caused by those activities are not per-determined. Unlike planned activities, unplanned activities cause a higher rate of losses. Unplanned downtime reduces the highest amount of OEE among all the losses. A cell manager assigns a set of people to fix the issues that causes the Unplanned activity. This set of people most of the time consists of a process lead, a maintenance lead and a team leader. the team leader is selected based on the shift which is active during that time. Sometimes someone from common shift goes to assist them.
- **Rate Loss (RL):** Rate loss are those losses which are considered as inevitable. While a machine (maker) is being initiated, it rejects a certain number of cigarettes. It also rejects cigarettes during “Splicing Process”. Splicing is the process where the

Processed tobacco is placed on the tipping paper and is about to be glued shut, using tipping glue. The machine does that to ensure that no defected cigarette passes through the sensors. In case of packer, while Inner-frame is set on the blanks, sometimes it misses places that the whole pack gets ruined. Thus, packers also reject cigarettes, which accumulates to higher amount of wastage.

- **Quality Loss (QL):** Cigarettes which are considered as quarantines are the ones that add to this loss. All the defected, deformed, misaligned cigarettes go to the quarantine bucket. Every day, the total weight of quarantine bucket is calculated and converted to see how much of OEE has been decreased because of Quality loss. The Tobacco or other materials in the quarantine bucket is not recycled. Thus, the financial loss is staggering. On an average more than 150KGs of tobacco is wasted daily. Three types of incident contribute to Quality loss. Which are as follows:
 1. Minor Stops
 2. Process Failure
 3. Break-Down
- **Mean Time Between Failure (MTBF):** Mean Time Between Failure shows the average time between two minor stops, process failure or in worst case scenario, breakdown. A maker can produce up to 10,000 units of cigarettes per minute. So even if only machine is stopped just for one minute it means that it will produce 10,000 units of cigarettes less than expected. Mean time between failures indicates the average time a machine can run without being stopped.

Tobacco and Other Wrapping Materials

- **Tobacco:** Tobacco is the primary material of a cigarette. BATB locally harvests or imports their tobacco. Different brands have different grades of tobacco. The price of

the tobacco varies based on the grade of the “Price Leaves”. Premium cigarettes get the highest grade of tobaccos. Some of the premium cigarettes’ tobacco are imported.

- **Cigarette Paper:**The white thin paper in which the tobacco is wrapped around is called Cigarette Paper. This paper is made with organic material. Cigar Paper are made locally.
- **Seam Glue:** Seam glue is used on cigarette paper. Just like Cigarette paper, seam glue is also making with organic materials.
- **Filter:**This portion of a cigarette contains a soft cotton cylinder which helps to remove as much harmful chemicals as possible. Though BATB has a Filter Manufacturing Department (FMD), they do sometimes import filters.
- **Filter Tow:** It is a paper like material that ensures that the filter retains its cylindrical shape.
- **Tipping Paper:** Tipping paper conjoins the filter and the tobacco filled cigarette together.
- **TippingGlue:**Used to glue shut the tipping paper. The amount of tipping glue is set within the system of the machine to ensure that not too much glue gets used.
- **Blank:** Blanks are thick paper which are folded and turned into packets. Blanks are pre-printed and then shipped to the SMD. Different blanks are used for different brands of cigarettes.
- **Inner-Frame:** Inner-Frame is used to strengthen the structure of a pack. It also helps to keep the pack sealed.
- **Foil:** Foil is an integral part of a pack. Keeping the cigarettes wrapped within the foil assures that the cigarettes will not get soiled and it will have its flavour. Foil are marks with the logo of specific brands.

- **Biaxially-oriented Polypropylene (BOPP):** Biaxially-oriented polypropylene or BOPP is used as an Over-Wrap. It keeps that packet safe and cigarettes fresh.
 1. **Over-Wrap:** Each pack is wrapped using BOPP. For an individual pack it is called Over-Wrap.
 2. **Outer-Wrap:** 10 packs of cigarettes makes one outer. BOPP is also used to wrap Outers.

- **Corrugated Box Carton (CBC):** Big Cardboard Boxes or Cartons are used to ship and distribute the cigarettes to local vendors. Each CBC contains 50 outers or 500 packs of cigarettes. Thus, ensuring the CBC is well protected is a must.

- **CBC Tape:** CBC tape is used to close the CBC properly. An operator manually tapes the ends of CBC shut.

- **Tear-Off-Ribbon (TOR):** TOR is a thin strip of BOPP. The function of a TOR is to simplify the unpacking procedure of a packet. Just pulling the end of a TOR will remove the Over-Wrap.

- **Dye-Ink:** Each cigarette has the logo and the flavour profile printed on the cigarette paper. Dye-Ink is used for that procedure. Red, Blue and Gold are the primary colours that are used.

- **Capsule:** Some cigarettes contain capsules, imbedded within the filter. These capsules contain artificial flavour to enhance the experience of the consumers. Both “B&H Switch” & “John Player’s Gold Leaf Switch” have capsules imbedded in their filters.

Why Every Module and Every Wrapping Material Matter?

Though to produce a cigarette, similar materials are used, but the quality of the materials vary a lot. For instance, to produce a Premium Tier Cigarette and a Low Tier Cigarette, some basic component such as Cigarette Paper, Tipping Paper, Filter is used. Same goes for producing a pack of cigarettes, Blanks, Foil, TOR are a must.

However, the price of these materials differs based on where it was produced, who are they suppliers, if they were imported or locally produced. Usually High-quality Tobacco and Wrapping Materials are used to produce Premium and High Tier cigarettes.

There are 32 Active Modules. Some of these modules produce cigarettes and pack of cigarettes which exceeds the target, whereas others do not. Some of the modules have repeated Process failure and Break-Downs. This not only stops the production process but also waste a lot of Tobacco and Wrapping Materials. Modules with issues tend to have more quarantines, which means have more non-recyclable wastage. They have been incidents where a module has had quarantine of 150+ Kgs.

Now this might not seem like a big issue for a manufacturing plant that has the ability to produce up to 300 Million Cigarettes but when you bring in the fact that the cost of the material that are being wasted have different price point, it becomes an alarming issue. If a Module which only produces Premium Cigarettes having process failures and breakdowns, the total number of productions will go way down. Incorporating the fact that the price of the materials used to produce these premium products is high too, gives a scenario of irreparable losses.

So, making sure that the modules are well maintained and inspected regularly is really important. It is also important to products High quality product only on better performing modules to ensure maximum production and minimum wastage.

Taxes & Other Government Fees:

Being the producer and distributor of one of the products, British-American Tobacco has to pay a large amount of tax and other fees to the Bangladesh government. BATB has four Tier of products and for products of each tier the Value Added Tax (VAT) and The Supplementary Duty (SD) rate varies. They also have to pay a specific rate Health

Development Surcharge (HDSC) for Every product-line. The Tax Bracket for their changes frequently. Currently the VAT, SD & HDSC bracket are as follows:

Product Tier	VAT	SD	HDSC
Premium (B&H Lines)	15%	65%	1%
High (JPGL & Capstan)	15%	65%	1%
Medium (Star Lines)	15%	65%	1%
Low (Hollywood, Derby, Pilot)	15%	55%	1%

British American Tobacco Bangladesh also has to pay 47.5% Income Tax. 45% of it is Corporate tax, which is the higher than any other industry and 2.5% Custom Duty (surcharge). After paying so much money for taxes and surcharges, BATB still is able to keep all of their stake-holders, satisfied.

In 2017 alone, BATB paid 164 Billion Taka in taxes. It paid to the national exchequer Tk. 154.64 billion in valued added tax (VAT), supplementary duty (SD) and health development surcharge (HDS), Tk.7.0 billion in income tax and Tk. 2.62 billion in customs duty. 74% of all SD, VAT and HDSC collected from Cigarette Industry were paid by British American Tobacco Bangladesh. They also were the largest Tax payer of 2017. Their net profit was 7.82 Billion Taka.(Khan, 2018)

Tobacco & WM Wastage in Terms of Financial Value:

British American Tobacco Bangladesh has to spend most their revenue on paying Taxes. So, to make profit, BATB has to reduce other unnecessary expenses. Different departments have different ways of reducing expenses. British American Tobacco Bangladesh does an amazing work at ensuring they are not wasting their resources on things which are not necessary expect in manufacturing process.

Operations is the biggest department in British American Tobacco Bangladesh. Manufacturing is a part of this department. Producing a pack of cigarette needs a lot of primary and secondary materials. Wastage of these materials contribute to the higher amount of expenditure and which in term decreases their overall profit.

BATB sells their Premium Tier Cigarettes for 230TK per pack, High Tier Cigarettes for 150TK per pack, Medium Tier Cigarettes for 90TK per pack and Low Tier Cigarettes are sold for 65TK per pack. The Government Charges 81% as VAT, SD & HDSC of the total retail value of their Product. BATB also has to pay a hefty amount of income tax too. It shows After paying all the taxes and other expenses BATB makes around 5% profit per pack. Though the exact value cannot be disclosed because of confidentiality purposes, the estimated value is does show promises.

However, if BATB can reduce their Tobacco and WM wastage, their Profit would increase by at least 1% according to Two Cell Managers that I have interviewed. In SMD, they have set a parameter which indicates the wastage tolerance level. A cumulative of 1.5% of total production is accepted by them. though on an average every module wastes around 4-5% of tobacco and other WM wastage Materials. So, by decreasing the wastage would ultimately increase their profitability. In order to do that, A cell manager has been assigned to look over the total manufacturing wastage and wastage minimization.

FINDINGS, RECOMMENDATIONS AND CONCLUSION



**BRITISH AMERICAN
TOBACCO**
BANGLADESH

Findings:

After the collation and interpretation of the whole project management system from a bird's eye view of which I have found out the following information's-

- ❖ For different brands, the weight of wastage of tobacco in terms of incurring financial loss, varies heavily. As cigarettes of different brands are sold at different price range, considering the wasted tobacco as homogenous is not viable.
- ❖ Wastage of WM causes the OEE of a module to decrease severally. Operators waste Wrapping Materials without thinks of the significance of the materials. All though they are encouraged not to waste any materials, they are reluctant.
- ❖ Certain modules produce more wastage than others. There is a total of 33 modules in SMD. Different modules have different technology. Modules with have older variants tends to produce more wastage.
- ❖ Wastage produced by the Over-Wrappers are actually produced by the operators working in those Over-Wrappers. Case Tape, CBC Tape and a few other WM are manually handled. Operators can easily minimize the rate of wastage just by using adequate amount of Wrapping Materials needed.
- ❖ The amount of wastage exceeds the parameters set by the SMD management. For the maker 1% of total production is acceptable as wastage and for packer its 0.5%. Most of the time, the percentage of wastage reaches up to 6-8% for the maker and 4-6% for the packer. The financial value of it is concerning.
- ❖ Machine Defects and failure contributes to the highest amount of wastage of Wrapping Materials. Every time any module is stops, a certain number of cigarettes are rejected. As the rejected cigarettes are not reused, all the materials get wasted, causing the wastage amount to go up.

Recommendations

- ❖ **Proper CIL:** CIL stand for Cleaning, Inspection and Lubrication. Operators are supposed to Perform a set of tasks that involves Cleaning, Lubricating and Inspecting certain parts of the machines to ensure uninterrupted production without any Minor Stops, Process Failure & Break-Down. But at times Operators tends to skip a few steps while conducting CIL. The Management must make sure that the operators are following every step of CIL
- ❖ **Well Trained Operators:** Most the Operators are well educated and knows the basic how-&-about of the modules. However, they are not properly trained. Of the operators that I've talked to, most of them do not know how to do the "Deep Cleaning" Procedure. It is a important skill to have.
- ❖ **Preference of Module:** To ensure That Premium and High Tier Cigarette Materials are preserved and are not being wasted, they must be produced in the best performing modules. A module that consists of Protos 90/100 andFocke would be the perfect modules for such product line. Protos and Focke are the latest and best performing technology available in SMD.
- ❖ **Engaging the Senior Technicians:** Senior technicians works on common shifts. Thus, if there is any break-down or Process-Failure in their absence they are not around to assist the operators. Without the help of senior technicians, it takes more time to fix the issue. If senior technician work on shifts, that would decrease the duration of failures.
- ❖ **Expanding Team-Leader's Role:** In Operations Department, a managerial employee is recruited as a team-leader. Their roles are to over-see the operators, making sure the modules are running smoothly during their shifts. Electrical/Mechanical Engineers are usually assigned as Team-Leader. they are given a brief of how every machines work but they don't get to the proper diagnosis of any machines. In Terms, their knowledge over the machines are way less than the knowledge of the Senior Technicians and the operators.

Conclusion

Being one of the biggest companies of Bangladesh, British American Tobacco Bangladesh provides young graduates the essence of how it feels to work for an MNC with their “Xcelerate Internship Program”. Working for British American Tobacco Bangladesh was privilege for me. Through this internship, I have learned a lot about different aspect of an organization. In the last three months, I’ve worked with the Secondary Manufacturing Department, which is a part of Operations Department. This department mainly focuses on Manufacturing and engineering part of BATB. So, being a Business Studies graduate, it was a bit hard for me to coup up with this new environment. BATB has implemented Integrated Working System (IWS) in their secondary manufacturing department. They are trying to fully adapt IWS in the work properly. When they’ll be able to adapt the Integrated Work System (IWS) completely they will surely become a world class organization. The ongoing Project Evolution will give its result in near future. By making the employees and workers High Performing Individuals, the whole organization will become a High Performing Organization. Though BATB has its fair share of challenges but eliminating those challenges will not be difficult if BATB can identify the root causes and work to fix them. What can be said with confidence is that BATB think about their employees. They constantly try to find out the improvement areas and they are always investing in the improvement of the employees. This constant improvement efforts makes BATB different from other organizations.

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