

Bottlenecks in Yard Management at SABMiller India (A)¹

It was the month of February in 2014 when SABMiller India's second largest beer company faced one of its toughest challenges. In one of its breweries in the southern Indian state of Andhra Pradesh, Charminar Breweries Ltd, SABMiller faced the challenge of streamlining its bottle yard. According to market studies, beer sales were 13% higher during summer than the annual average². With peak summer season approaching, the brewery had to find a quick solution to the bottle yard issue by deploying processes and systems. This would enable the brewery to assess the number of used beer bottles and effectively utilize the yard space thus increasing storage capacity. According to SABMiller, if done successfully, this would lead to minimum bottle breakages by their workers during the handling process.

Beer Market in India

In the year 2014, beer was the third popular beverage after water and tea and it was the fastest growing alcohol-based product in India. During this year, beer held 4% of total alcohol market and spirits held the rest of the share³. Although Indian alcohol industry was dominated by stronger spirits, over the years beer had made a mark and was able to make its presence felt. Size of the Indian beer market was 21.4 mhl (milli hecto litres) annually with per capita consumption at 1.7 litres in the year 2014⁴. Studies conducted in the late 2000s show that beer was the preferred alcohol of the 21st century Indian - irrespective of gender.

¹ *Sriram P and Prof. Lakshmi Iyer, Institute of Management, Christ University, developed this case study. The authors of this case study would like to acknowledge the help and support provided by Mr. Akhil Srivastava, General Manager, SABMiller India.*

The case study solely provides material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation.

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² <http://thesovereigninvestor.com/diversified-investments/beer-consumption-up-despite-cooler-summer/>

³ NIIR Project Consultancy Services report - India Beer Market- Industry Size, Share, Trends, Analysis and Forecasts (2013-17) <http://www.niir.org/books/book/india-beer-market-industry-size-share-trends-analysis-forecasts-2013-17/isbn-9789381039342/zb,,18b6f,search,72,0,c/index.html>

⁴ Ibid

The Indian beer market was dominated by United Breweries⁵ with over 48% market share followed by SABMiller India with around 25%⁶.

During this period the beer industry boasted of an array of high quality beer that was not earlier available for the consumers. There were different varieties of beer based on the type and quality of ingredients and the process of brewing. The players of the beer industry left no stone unturned for wooing the Indian consumer through product choices and branding. They offered a choice of fruit flavours, spice infusions and a variety of brands with fancy names like Basmati Blonde. In the year 2008, SABMiller India added Indus pride to its bouquet in the fancy beers segment. This was India's first beer brewed with authentic Indian spices (Annexure 1).

The beer consumption in India had changed drastically with mushrooming of beer cafés and microbreweries. It remained unfazed by the economic downturn in the nation during the period 2008-09⁷. The rapidly growing Indian population served as a readily available market for the beer producers (Annexure 2). The younger age group of Indian population augured well for the beer industry. Women, who earlier comprised of only a small proportion of alcohol consumers in India, had become part of increased consumption of beer primarily due to rising acceptability of social drinking among the community. Increase in the consumption by the fairer sex was also due to its lower alcohol content and the health benefits it was believed to possess.

Despite the positive outlook in the Indian alcohol industry, it did not attract many players as it was characterized by high entry barriers due to government regulations. The production, distribution and sale of liquor were controlled by the state in India. As a consequence of this, the liquor industry was subjected to very strict distribution controls. The industry struggled due to lack of uniformity in the regulations which varied from state to state.

Further beer, although contained less alcohol, was taxed in the same manner as strong spirits which in turn made beer expensive for the end user. This was considered as unjustified pricing by industry experts. Indian liquor companies were also plagued with low margins due

⁵ United Breweries was an Indian company headquartered in UB City, Bengaluru in the state of Karnataka, India. It had annual sales of over US \$4 billion by 2014.

⁶ op. cit Footnote 2

⁷ Op. cit Footnote 2

to limited pricing flexibility and high overhead costs leading to financial challenge for the industry⁸.

Further the government banned the advertising of alcohol products thus creating another branding and promotional challenge for the industry players. However, companies resorted to innovative ways to market their products. They branched out to non-alcoholic brand extensions, surrogate advertising and co-branding with sports events. The industry also faced moral restrictions due to religious influence. Some groups, particularly of religious nature, tried to ban alcohol altogether and made its consumption a sin. Despite such challenges Indian market was seen as a sea of opportunities by brewers and marketers.

SABMiller

SABMiller had its origins in Johannesburg, South Africa in the year 1886 at Castle Brewery. Charles Glass, founder of Castle Brewery, sold high quality beer at that time, and his brewery became the head quarter of SAB (South African Brewery) in 1895. SAB acquired Ohlsson's and Chandlers⁹ by 1955 to hold 98% of South African market and streamlined its production and distribution within this market. In the year 1955, the South African Government introduced heavy tax on beer products, thus causing many consumers to switch to spirits. This led to "depressed demand for beer". SAB came out with a strategy to acquire competitors to rationalise its operations and reduce cost to increase its profitability¹⁰.

In the year 1993, as part of its growth strategy, the company acquired Dreher brewery in Hungary. In three years, SAB established its presence in six countries after purchasing ten breweries. In 1999, the headquarters shifted to London and the company was listed as SAB Plc (SAB). The company was also the largest Coke bottler outside USA. SAB established its foot print as a bottler for Coke in 27 countries.

By the year 2001, SAB's international operations accounted for 42% of the group's turnover making it the leader in the international beer market¹¹. Under Graham Mackay, Chief Executive and Chairman, SAB acquired the Miller Brewing Company¹² in the United States in 2002 to become SABMiller. The company moved to Latin American market by acquiring

⁸ CRISIL report - Indian liquor industry-regulatory hangover to continue
http://www.crisil.com/Ratings/Commentary/CommentaryDocs/liquorind_vivek.pdf

⁹ Founded in the year 1864 by Swede Anders Ohlsson in Africa

¹⁰ <http://www.worldofbeer.co.za/blog/entry/early-history-of-south-african-breweries>

¹¹ <http://www.sabmiller.com/about-us/history>

¹² Founded in the year 1855 by Frederick Miller and located in the Miller Valley in Milwaukee, USA

Colombia's Bavaria S.A.¹³ in 2005 followed by entry into the Australian market by acquiring Foster's Group¹⁴.

According to the annual report for the FY 2012-13, SABMiller with its brewing heritage of over 100 years, had revenue of \$ 34,487 million with 122 breweries across the globe. By 2014, the company produced more than 200 types of beer in over 180 countries to emerge as the second largest brewer in the world. The company employed around 70,000 employees in more than 75 countries¹⁵.

SABMiller India

In the year 2000, SABMiller formed a joint venture with Narang Breweries¹⁶ in India. Later the company acquired the brewery followed by Mysore Breweries¹⁷ in 2001. SABMiller acquired beer brands of Shaw Wallace (Royal Challenge & Haywards) in 2003 to consolidate its position in the Indian market. In the year 2006, SABMiller acquired Fosters India. The American beer, Miller High Life was launched in 2011 and later strong variants of Foster's and Royal Challenge were introduced in the Indian market. The following year in 2012, the company launched Indus Pride, India's specialty beer brewed with authentic Indian spices in four variants- Citrusy Coriander, Citrusy Cardamom, Spicy Fennel and Fiery Cinnamon (Annexure 1).

SABMiller had invested \$ 700 million since entering the Indian market. The company established 17 world-class breweries strategically located across 14 states in India, which was well positioned to easily access and efficiently serve the beer markets (Annexure 3). SABMiller India had eight brands in its portfolio. Some foreign brands that were available in the Indian market were Corona, Budweiser, Carlsberg, Heineken, Shepherd Neame and Carling. SABMiller also used its global expertise to create many firsts in India including the use of one-way bottles and flash pasteurized draught standards¹⁸. The company offered a wide range of pack sizes for the beer consumer in India (Annexure 4).

¹³Founded in the year 1889 by Leo S.Kopp in South America

¹⁴ The company was based in Melbourne Victoria and was later renamed as Carlton & United Breweries prior to sale to SAB Miller

¹⁵ Swagatam, 2014 – A publication from SAB Miller

¹⁶ Established in the year 1942 as Narang Industries got into liquor business in early 1990s

¹⁷ Incorporated in the year 1970, the Bangalore based brewery manufactured beers like ale, draught, porter & lager

¹⁸ It is a method of dispensation of beer through a pressurised keg typically used in bars around the world

The management of SABMiller India adopted the experience, knowledge and skills of experts from its various locations. With the vision to be amongst the three most admired beverage companies in India, the company invested in world class breweries. By 2013, SABMiller, moved within striking distance of market leader United Breweries in the Indian beer market with 20% jump in sales. This was attributed due to product launches and significant innovations¹⁹. As part of its sustainability practice, SABMiller India cared for the issues related to depleting natural resources. As the company's profitability depended upon healthy communities and growing economies, the company ensured that it created value through waste reduction and carbon emissions in its manufacturing process. The company supported responsible and sustainable use of land for brewing crops. It also accelerated growth and social development through its value chain²⁰.

Yard Management Issue at Charminar Breweries

Charminar Breweries was SABMiller India's first brewery to have a capacity of 1.5mhl. In a beer bottling plant, bottle yard was the place where used beer bottles were sorted and cleaned. A yard was an area, close to the warehouse where goods and transportation units were stored for a short period of time. The scope of the yard management system ranged from the point where empty beer bottles were received in trucks till they were fed in line for further re-filling of beer (Annexure 5). Loading of transportation units happened once a week and unloading happened every day in the yard. The size of the yard at Charminar Breweries was approximately four acres²¹.

One of the challenges faced by SABMiller in the yard management system was to control the bottle yard where empty bottles were stacked. The old bottles had to be crated²² and segregated on a daily basis within the yard. Later, bottles had to be sent for cleaning in various lines. Depending upon the number of bottles in a specific SKU, bays had to be allotted for the cleaned bottles within the yard for counting. From here, bottles were loaded for refilling of beer once a week. Bottles which were broken were dumped in the dump yard.

Systems were to be created to reduce the usage of trucks for transport within the facility and identification of non-value added activities during the transport process. Overall, SAB wanted to bring in process optimization by minimizing costs and maximizing efficiency. The

¹⁹ <http://www.sabmiller.in/news/sabmiller-beer-revenues.aspx>

²⁰ <http://www.sabmiller.in/sustainability.aspx>

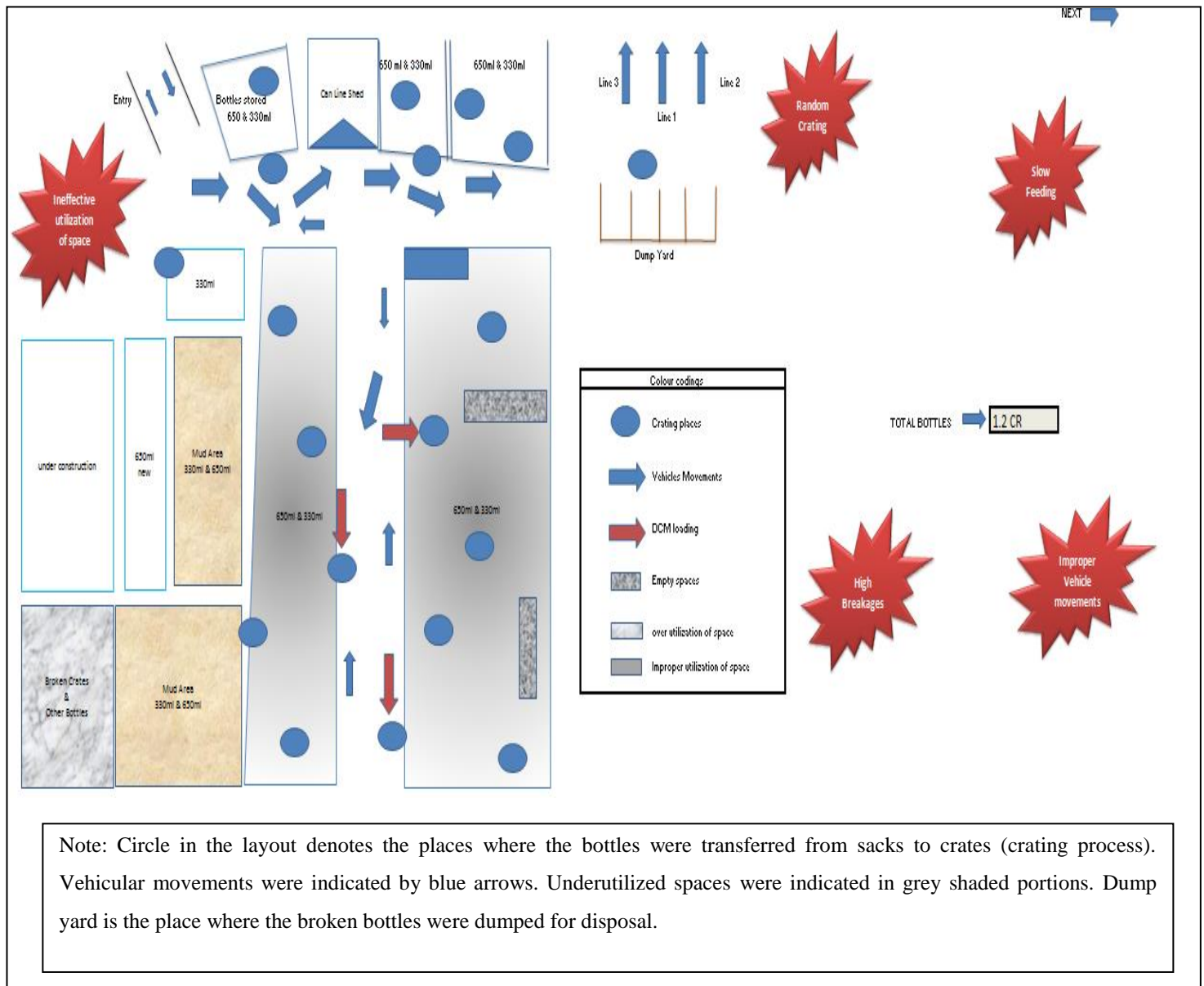
²¹ Approximately 1,74,240 sqft

²² Crating is the process of placing the bottles from sacks into crates

company wanted to deploy processes and systems which would help in counting the number of bottles with 100% efficiency. These systems would enable effective utilization of space thus increasing storage capacity.

The layout of the yard and the operations which were part of it were mapped to AS-IS layout. (Exhibit 1)

Exhibit 1: Yard layout at Charminar Breweries



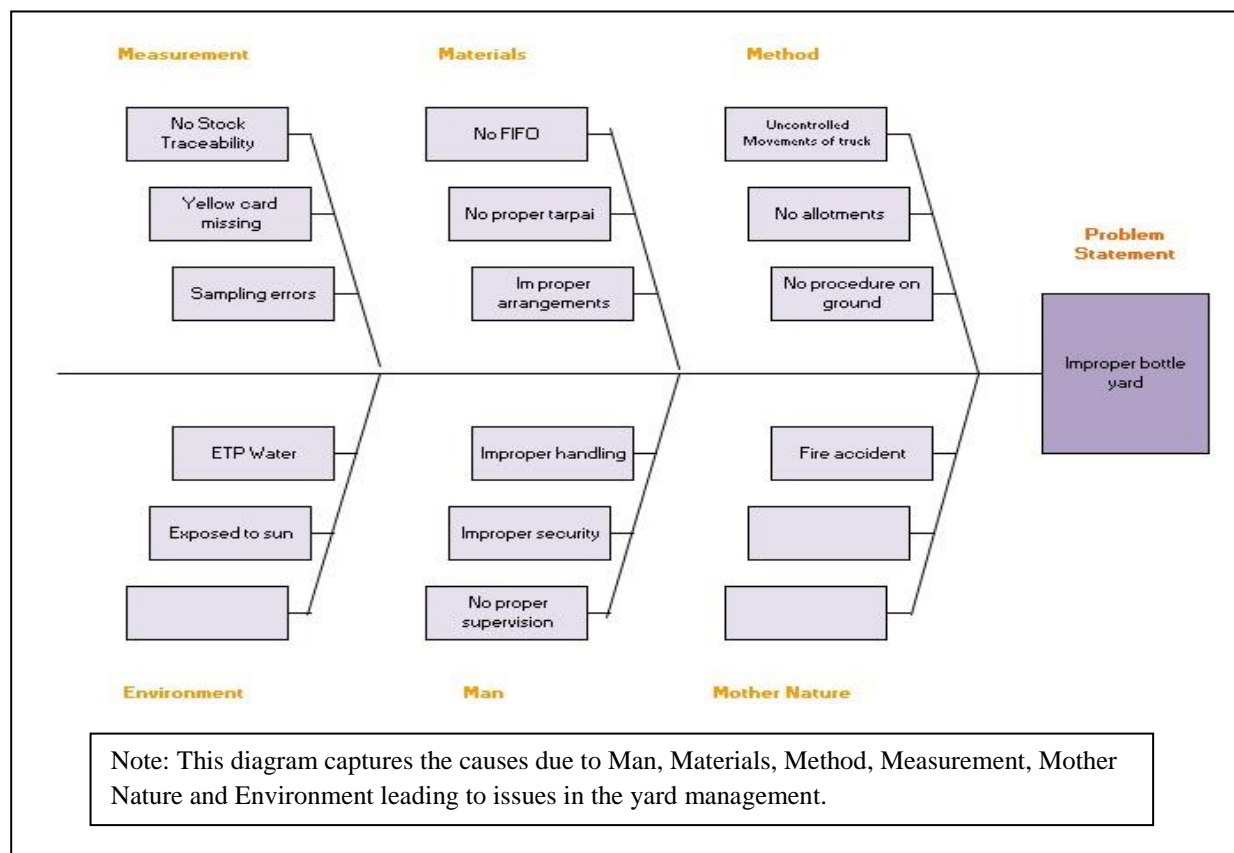
Source: Compiled by the authors

In the existing process, empty bottles packed in sacks were unloaded from trucks in different locations within the yard. Two stock keeping units (SKUs) namely 650 ml, 330 ml were

mixed up and not sorted in the given space. There were delays in locating the bottle leading to delay in the crating process. Crating happened in undesignated locations leading to chaos.

These issues in the bottle yard were classified and categorized to identify the causes leading to improper bottle yard management (Exhibit 2).

Exhibit 2: Fish Bone Diagram – Improper Bottle Yard Management



The issues were looked upon and the layout was modified. A complete bay marking sketch of the entire yard was done to streamline the various processes through process improvement procedures. Colour coding was used to segregate the SKUs of bottles enabling bottle counting. To optimize the facility a TO-BE layout was created. This initiative enabled the modification or removal of processes which were not adding value to the yard management system. The modified system reduced the amount of time spent by the trucks inside the facility. It brought down the congestion created by the trucks thus making the facility clean

and safe. SABMiller trained the manpower with the revamped processes to ensure the successful deployment of processes.

The company claimed that the streamlining of the process was not only successful but also beneficial. This initiative increased the company's bottom line. It led to the reduction in the usage of external warehouse thus saving INR 1,08,000 per month. The number of trucks deployed to carry used bottles was reduced from 11 to 9 leading to a cost savings of INR 74,000 per month.

Manual counting of bottles was replaced by standardised counting with the new layout. The new system facilitated the tracking process of breakage of bottles. The capacity of the yard increased from 1.2 crores to 1.6 crores due to the revised layout. The number of people involved in the process was brought down to 90 from 110 thus saving INR 90,000 per year.

Looking Ahead

The solution thus found in SABMiller's Charminar breweries seemed to be scalable and sustainable. It was felt that if more SKUs were added to the yard the revamped system would handle them efficiently. SABMiller had identified similar issues in its other breweries as well. After the success of the pilot project at Charminar breweries the company faced the challenge of replicating the systems in its other facilities across India.

Annexure 1 – Beer Brands from SABMiller India

Brands from SABMiller India	Features
Haywards 5000	Combines strength with quality
Knock Out	Refreshingly Beer – Strong
Foster's	From finest malt barley – Australian
Royal Challenge	Mild beer – Smooth & Crisp taste
Royal Challenge Strong	Smoothest Strong beer
Peroni Nastro Azzurro	Refreshing and dry – Italian
Miller High Life	Bitter & Smooth – American
Indus Pride	Brewed with spices – Indian

Source: www.sabmiller.in/brands.html

Annexure 2 – Beer consumption in India

Year	Consumption(in hecto litres)
2009	14.95
2010	16.86
2011	18.85
2012	20.92
2013	23.23
2014	25.63
2015	28.15

Source: <http://www.sabmiller.com/about-us/history>

Annexure 3 – Brewery Locations in India

Brewery Name	State
Charminar	Telangana
SICA	Puducherry
Malabar	Kerala
Rochee	Rajasthan
Central Distilleries	Meerut
SABMiller India	Karnataka
East Coast	Odisha
Pals	Maharashtra
Haryana	Haryana

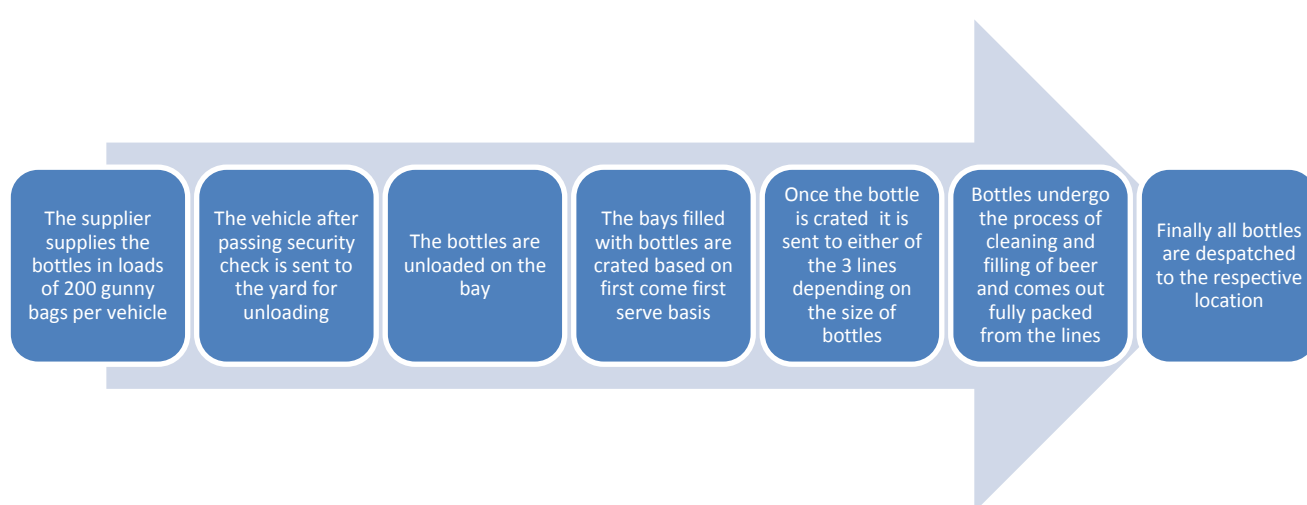
Source: www.sabmiller.in/about_our_spread.aspx

Annexure 4 - Range of pack sizes

Bottle	650 ml, 330 ml, 250 ml
Can	500 ml, 330 ml
Draught	50 litre, 15 litre mini
Pet bottles	1 litre, 1.5 litre

Source: www.sabmiller.in/about_sabmiller-India.aspx

Annexure 5 – Process flow of the yard layout



Source: Compiled by the authors

Annexure 6 – Bottle Handling Yard & Yard Layout at Charminar Breweries

Source: Photographs from the facility compiled by the authors