A CASE STUDY ON SUPPLY CHAIN MANAGEMENT WITH SPECIAL REFERENCE TO MUMBAI DABBAWALA

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Abstract: Supply chain management is an integral part of any organisation. Mumbai dabbawala operation is widely recognised as an outstanding example of excellence in supply chain management. Because of its popularity Prince Charles of United Kingdom & Richard Branson (Founder & Chairman of Virgin group) paid a visit to ‘dabbawalas’ operations site during their visit to India. In this paper I have tried to explain the supply chain management of Mumbai dabbawala & their uninterrupted services.

KEYWORDS: Supply Chain Management, Six Sigma, Tiffin.

INTRODUCTION: Dabbawalla is a person in India, most commonly found in the city of Mumbai, who is employed in a unique service industry whose primary business is collecting the freshly cooked food in lunch boxes from the residences of the office workers, delivering it to their respective workplaces and returning the empty boxes back to the customer’s residence by using various modes of transport.

HISTORY: It was the time when India was under the British rule. British people who came to the colony did not like the local food. A Parsi banker employed a person to bring home-made food to site of work. His colleagues too liked this idea and started availing this service. Started a lunch delivery service with about 100 men in 1890.

Charitable trust registered in 1956 as NMTBSA (Nutan Mumbai Tiffin Box Suppliers Association) & it was being headed by president, Raghunath Midge, who was assisted by a general secretary, a treasurer and a director. Almost they covered 60 -70 kms. Total strength of employees 5000, number of dabbas 2,00,000 i.e. (4,00,000 transaction a day). Time taken 3 hours.

APPROACHES FOR GOOD SUPPLY CHAIN MANAGEMENT:

SIX SIGMA PERFORMANCE: In 1998, Forbes Global magazine conducted a quality assurance study on the Dabbawalas’ operations and gave it a Six Sigma efficiency rating of 99.999999; the Dabbawalas made one error in six million transactions. 6-Sigma refers to a quality improvement and business strategy concept started by Motorola in the United States in 1987. In statistical terms, 6-Sigma is the abbreviated form of 6 standard deviations from the mean, which mathematically translates to about 3.4 defects per million.

DISCIPLINE:

➢ Reporting to duty on time.
- Behave properly.
- Respect the customers.
- No alcohol drinking during business hours.
- Wearing white cap during business hours.
- Carry identity cards.

**LATEST MARKETING STRATEGY:** Marketing pamphlets in the “Dabba”. Star TV hired the services of Dabbawalas to distribute the pamphlets of Amitabh Bacchan anchored “KBC” reaching 2 lakhs Mumbaikars in just 4 days. Maharashtra government propagates HIV awareness though Dabbawalas channel. Campaigns done for many companies in Mumbai. Dabbawalas are the fastest and most economic method to reach the nook and corner of Mumbai. This brings additional earning for Dabbawalas.

**ORGANISATIONAL STRUCTURE & WORKING STYLE:** The Nutan Mumbai Tiffin Box Suppliers' Charity Trust had a very flat structure with only three levels, the Governing Council, the Mukadams and the Dabbawalas. From the Governing Council, a president, a vice president, a general secretary, a treasure & directors were elected. The Governing Council held meetings once a month which were attended by the Mukadams (Supervisors) and Dabbawalas. At these meetings, the Dabbawalas discussed their problems and explored possible solutions. The problems could be with the police, Municipal Corporation, customers, etc. They also adjudicated disputes among Dabbawalas using their own system. The Trust collected Rs.15 from each Dabbawala every month to maintain a welfare fund.

![Organisational Structure of NMTBSA](organizational_structure.png)

**SUPPLY CHAIN:** A collecting dabbawala, usually on bicycle, collects dabbas either from a worker's home or from the dabba makers. As many of the carriers are illiterate, the dabbas have some sort of distinguishing mark on them, such as a colour or group of symbols.

The dabbawala then takes them to a designated sorting place, where he and other collecting dabbawalas sort the lunch boxes into groups. The grouped boxes are put in the coaches of trains, with markings to identify the destination of the box (usually there is a
designated car for the boxes). The markings include the railway station to unload the boxes and the destination building delivery address.

At each station, boxes are handed over to a local dabbawala, who delivers them. The empty boxes are collected after lunch or the next day and sent back to the respective houses.

Supply Chain of NMTBSA

**CODING:** Lunch boxes are usually marked in several ways: (1) abbreviations for collection points, (2) colour code for starting station, (3) number for destination station and (4) markings for handling dabbawala at destination, building and floor. The dabbawalas have started to embrace technology, and now allow for delivery requests through **SMS**. A colour-coding system identifies the destination and recipient.

**VLP:** Vile Parle (suburb in Mumbai), **9EX12:** Code for Dabbawalas at Destination, **EX:** Express Towers (building name), **12:** Floor no. **E:** Code for Dabbawala at residential station, **3:** Code for destination Station eg. Churchgate Station (Nariman Point).
UNINTERRUPTED SERVICES: The service is almost always uninterrupted, even on the days of severe weather such as monsoons. The local dabbawalas and population know each other well and often form bonds of trust. Dabbawalas are generally well accustomed to the local areas they cater to, and use shortcuts and other low profile routes to deliver their goods on time. Since 1890, when the dabbawalas formally came into existence, none of them had ever gone on strike until 2011 when the members decided to head towards Azad Maidan to support Anna Hazare in his campaign against corruption.

ECONOMIC ANALYSIS: Each dabbawala, regardless of role, is paid about eight thousand rupees per month. One month’s Diwali bonus from customers. The New York Times reported in 2007 that the 125-year-old dabbawala industry continues to grow at a rate of 5–10% per year. Zero % fuel, zero % investment, zero % modern technology, zero % disputes, 99.9999% performance & 100 % customer satisfaction.

SWOT ANALYSIS:

STRENGTHS:

➢ 100% Achievements in-

* Teamwork, discipline, honesty
* Time management
* Ownership & Pride in work
* Customer satisfaction
* Low operational cost, process consistency
* Service delivery of six sigma
* Service commitment (No strike since inception)
* Satisfaction of team member (due to low attrition)
* Full proof delivery model through colour coding
* Financial independence.
* Just in time approach

➢ 0 % dependence upon-

* Fuel in last mile service delivery
* Technology related process complexities
* Investment
• Documentation

WEAKNESS:

- Highly dependent on Mumbai local trains
- Limited fund flow of the association limits the governing body to implement welfare schemes
- Limited Access to Education, limit diversification of members to other business jobs

OPPORTUNITY:

- Tie up with caterers to serve variety of meals i.e. diet food, Chinese/continental food, food for fasting
- Opportunity on the expansion of services on the routes of Mumbai metro & BRTS
- Generating revenue by promotion of other brands
- Expanding networks in other cities
- Booking of service through internet & SMS
  (Recently started – needs to be popularized)

THREAT:

- Threats from fast food joints & small restaurants
- Flexi – timing \ work from home culture
- Food courts at mall \ mega structures
- Catering services offering tiffin services
- Paper food vouchers & smart cards i.e. food plus by HDFC
- COMPETITORS: The major competitors of Mumbai dabbawala are Magic-o-meal, Food plus by HDFC, Fast Food chains, restaurants, road-side vendors, Udipi chain, food box etc. Competition is different here no manufacturing, only distribution.

But, Home food – The USP of Dabbawala nullifies the threat.

AWARDS AND FELICITATION:

- Documentaries made by BBC, UTV, MTV, ZEE TV, AAJ TAK, TV TODAY, SAHARA SAMAY, STAR TV, CNBC TV 18, CNN, SONY TV, TV TOKYO, NDTV.

- Included in a subject in Graduate School of Journalism University of California, Berkeley.

- Invited for the Terra Madre World meeting of food communities in Italy between October 20-23, 2004.


- Invitation from CII for conference held in Bangalore, IIML, IIMA, CII Cochin, CII Delhi, Dr. Reddy’s Lab., Foundation Hyderabad, SCMHRD Pune, SCMHRD Nasik, Sadahana –Poone.

- Name in “GUINESS BOOK of World Records”.

- Part of the “Community of Cooked Food distributors from Mumbai”.


- Registered with Ripley’s “believe it or not”.


- World record in best time management.

**CONCLUSION:** In this highly technologically advanced time ‘dabbawalas’ are working absolutely without technology. They have an excellent supply chain, despite the fact that they don’t even know what it means. Most of the people working with them are semi-literate but still they read the tiffin code correctly and deliver it. Their attitude of competitive collaboration is equally unusual, particularly in India. Their excellent sense of deep commitment, sense of work ethics and unparalleled time management system are best in place.

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