# Workforce Just in Time with Dabbawala of Mumbai



Presented by :
Mr. Abhishek Dinkar Ekal
info@abhishekekal.com; www.abhishekekal.com
Cont No. +91-8692975450 / +91-8692975445

# Workforce Just In Time

Workforce - Just in Time is not anything but a creative workforce strategy designed specifically for each customer in order

➢ to quickly locate resources based on demand
➢ to get the right quantity of service / product at the right place and the right time
➢ to reduce inventory
➢ to eliminate waste
➢ to achieve total quality management

Success of any business depends upon Workforce Logic that has experience, commitment, track record to provide service under any critical circumference. The primary goal for the company & employee should be customer's satisfaction and if they failed to reach perfection in this area then all the processes are worthless.

In essence it is about assigning the right employees with the right skills to the right job at the right time to meet demand while optimizing the scheduling of staff.

# Introduction to Dabbawala

A Dabbawala is a person in Mumbai, India whose job is carrying and delivering homemade food in lunch box (called Dabba, Tiffin) from home to their respective workplaces (e.g. office, school, shops etc) and returning the empty boxes back to the customer's residence by using various modes of transport such as hub-and-spoke system of foot, bicycle, handcart, and train-based transport in metropolitan Mumbai.



Originated under British colonial rule, the Dabbawala system of food delivery uses by today's businessmen, office workers, shopkeepers, school student and community kitchens in modern Mumbai and have become the main customers of Dabbawalas.

The Dabbawalas come from the rural area of Maharashtra. They are the descendants of soldiers of the legendary Maharashtrian warrior-king, Shivaji. They belong to families of small farmers and still work in the fields from time to time.

The Dabbawalas are simply incredible, they have survived for over one hundred years, through wars, through political crisis, the technological craze and environment crisis. But they are still intact and always on-time, even through the rainiest days on the planet. Their creativity and ingenuity have kept them alive. The Dabbawalas have become icons of hard work and dedication. They are here for the long haul and over time will only get better.

# Value Chain & Logistic network (Supply Chain)



If the company wants strong and long lasting value chain all the links within the chain must be prepared to overpass all existing problems. Logistics is concerned with the physical distribution of products and services. One the most important logistics concept is the Workforce Just-In-Time concept.

The value chain was described and popularized by Michael Porter (1985) in his bestseller; the value chain describes the full range of activities involved to bring a product or service from its conception to its end user. These activities are divided in two major groups. The "primary activities" include: inbound logistics, operations (production) and the "secondary activities" outbound logistics, sales and marketing, and service.

Logistic network or Supply Chain is co-ordinate system of people or resources involved in physically moving the product or service from supplier to customer. The primary objective of supply chain management is to fulfill customer demands through the most efficient use of resources

# Just In Time Concept

Just in Time (JIT) is a philosophy which eliminates waste associated with time, labor, and storage space. Basics of the concept is that the company produces only what is needed, when it is needed and in the quantity that is needed. The company produces only what the customer requests, to actual orders.

The technique was first used by the Ford Motor Company during 1920s, but the technique was subsequently adopted and publicized by Toyota Motor Corporation of Japan as part of its Toyota production System (TPS). In 1954 Japanese giant Toyota implemented this concept in order to reduce wasteful overstocking in car production.

# Workforce Just In Time Strength

**Advantages of Workforce Just in Time:**

1. Since now a day, where the market demand is volatile and somewhat unpredictable, Workforce Just-In-Time works on a demand-pull basis, i.e. all goods, services made would be sold, and thus it incorporates changes in demand with surprising ease.

2. Under this technique, only essential stocks are obtained, hence less working capital is required.

3. Constant communication with the customer results in high customer satisfaction.

4. System keeps stock holding cost to bare minimum. The company produces only what the customer requests, to actual orders, not to forecast

5. Over production is eliminated, when just-in-time is adopted

6. System eliminates waste: wastes that do not add value. Since in this company produces only what is needed, when it is needed and in the quantity that is needed.

7. Small set up time is required with small batches

8. Empowerment of workers enables quick response.

9. High turnover with minimum inventory level

10. Multi skill, flexible work in team

# Workforce Just In Time Weakness

Disadvantages of Workforce Just in Time:

1. Just-in-time provides zero tolerance for mistakes, as it makes re-working very difficult in practice, as inventory is kept to a bare minimum.

2. The organization would not be able to meet an unexpected increase in orders, due to the fact that there are no excess finish goods.

3. Transaction costs would be relatively high, as frequent transactions would be made.

4. There is a high reliance on suppliers, whose performance is generally outside the company.

# Key factor that influence workforce just in time:
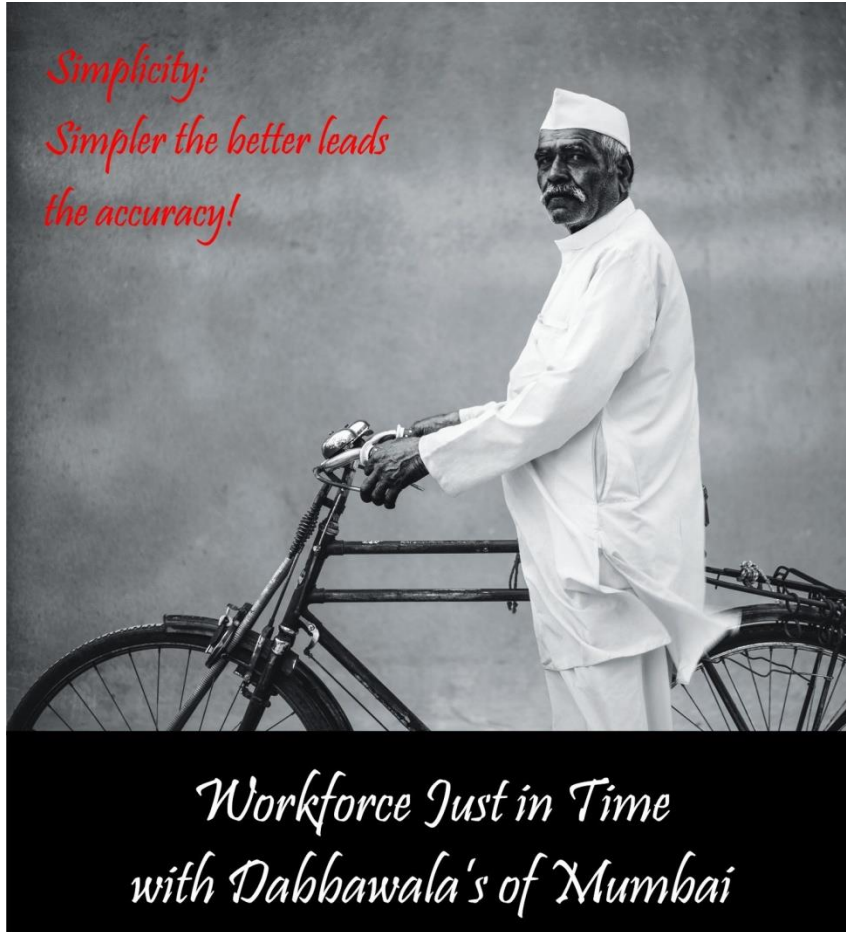


**Simplicity:** Simpler the better!

Dabbawala as well as Dabbawala system is very very simple. Anyone can understand them by any means. Almost 85% of Dabbawalas are illiterate & remaining 15% are hardly literate up to 8-10 Standard. Almost all Dabbawalas are belongs to small villages & they are having very simple living. There system also works on simple coding system which developed & designed to understand illiterate people. Due to simplicity Dabbawala are having strong command over system which leads to achieve high degree of accuracy. Also when new Dabbawala join the system he takes minimum time to understand the system & start working.

Hence I counsel, keep your system as simple as possible so that existing employee will have strong command over system which further leads innovation by themselves & they are able to deliver best they have with higher accuracy. Also when new comers join the organization they can immediately understand the system & start to deliver output at their earliest, otherwise complicates system leads to more time consuming. Simplicity simply leads to Workforce Just in Time!

# Key factor that influence workforce just in time:



Workforce Empowerment:

It's my Business!

Workforce Just in Time
with Dabbawala's of Mumbai
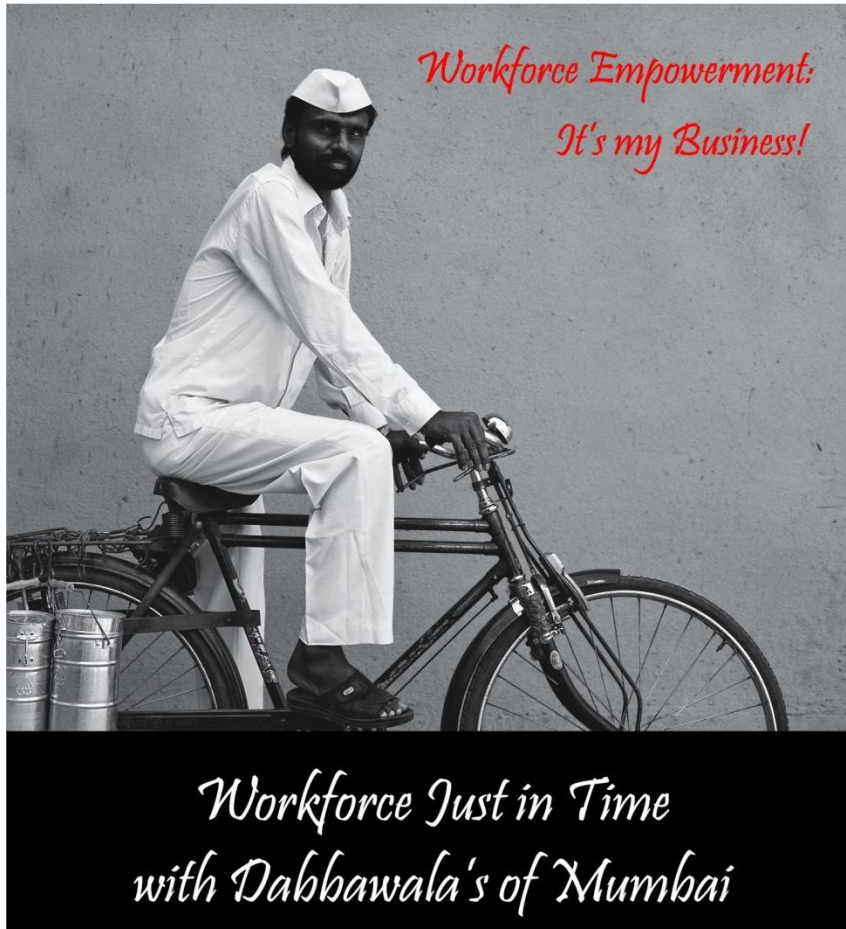
## Workforce Empowerment:

Dabbawalas do their work with full dedication, commitment and hard work even without being monitored since each Dabbawala is a share holder. Due to empowerment there is no fear of boss. Dabbawalas operate in group of 25 – 30, headed by a group leader called Mukadam and Mini government to guide, help and sort discrepancies. It is very flat organization; hence instant decision making takes place on the spot without any formalities, which leads to quick operation. If house wife delay to furnish Dabba on time to Dabbawala, she will be warned for 2-3 days for timely handing over. After warning also if Dabba got interruption then Dabbawala canceled that customer in such case he need not to take permission of his boss or mukadam. He canceled the customer because of that customer other customers delivery may get affected. Due to empowerment only Dabbawala take the decision to canceled the customer or increase the customer.

Hence I Counsel that, make all your employee share holder in your company, At least key employees should be share holders. If not possible then salary should be linked to performance of company. So that empowerment will get develop among the workforce. Empowerments go ahead to Workforce Just in Time!

# Key factor that influence workforce just in time:



Behavior Science:
Focused on serving customer!

Workforce Just in Time
with Dabbawala's of Mumbai
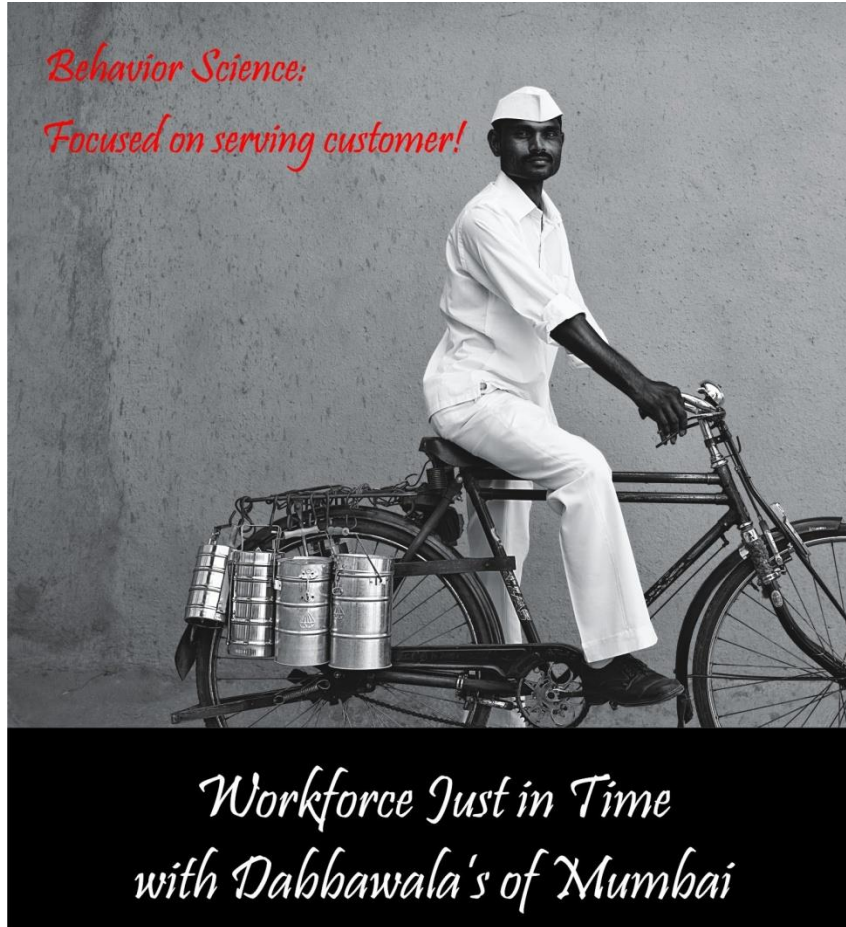
**Behavior Science:** focused on serving customer

Entire Dabbawala has a single focused belief i.e. serving customer. Dabbawala work revolves around a few beliefs - the most important of which are sticking to time and believing that work is worship, he said. "Annadan is Mahadan" (giving food is the greatest charity). Dabbawalas have a strong belief in god. But we don't see god, so to whom we should worship? After all it's People they are creations of god. "Dabbawala worship god by ensuring that people get to eat their food on time,"

Lots of businessman , celebrity shows their interest to meet Dabbawalas. But Dabbawalas never give them more importance than his customer, his first choice is his customer service then all around, if any body wants to meet Dabbawala he used to call at workplace after meeting of vey short time they immediately start for delivering Dabbas. "Customer is Not the Raja – But Maharaja"

Hence I counsel that, primary goal for every organization & workforce should be customer's satisfaction and if they failed to reach perfection in this area then all the processes are worthless. Organization should create environment that where entire workforce must believe that customer is god. Focused behavior conduct to Workforce Just in Time!

# Key factor that influence workforce just in time:



Continuous Improvement:
Continuous improvement
always striving to improve!

Workforce Just in Time
with Dabbawala's of Mumbai

**Continuous Improvement:** Continuous improvement always striving to improve.

If you see the history of Dabbawala system you will find that system started with single customer & single employee. If you ask Dabbawala "when the Dabbawala system started?" they used to say "Hum angrejo k jamane ke jeller to nahi lekin angrejo k jamane k dabbewale jarur hai" Almost 100 years back under British colonial rule, there was one parshi banker who appoint one person to bring his home made food from his house to his work place, that banker continue this service for several time, his culliges also like the service & started to avail this service. That clicks the system & turn into today's massive number of Dabbawala as well as large number of customer.

# Key factor that influence workforce just in time:
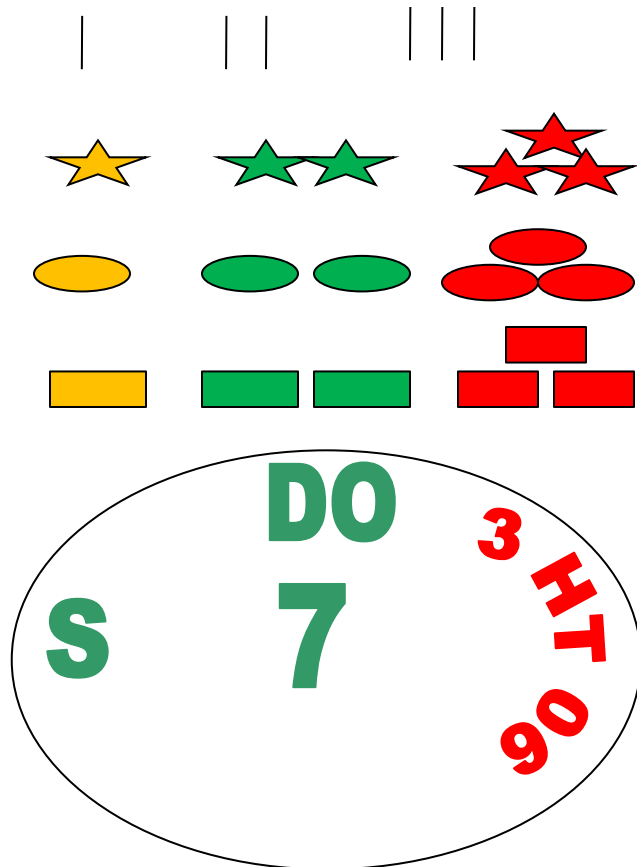
Initially coding system used colored threads to mark 7 islands. Then utilized thrown away cotton waste from tailors. E.g. Dabba with red cotton is of Mr. Patil, white is of Mr. Jain. With increase in customer they stared with Lines, Stars, Circle and Square etc. E.g. one green star is of Mr. so an so, three red square is of Mr. So an so….

Again increase in customer leads to unique coding system which is very simple & leads to error free delivery.

S   :: Code for Dabbawala/Street at residential station.

DO   :: Residential station Dombivali.

7   :: Code for destination Station
     E.g. Curreyroad

3   : : Code for Dabbawalas at Destination

HT   :: Hirnandani Towers (building name)

06   :: Floor no in the building.

Hence I counsel that, every organization should focus on improving every operation. Continuous improvement always striving to improve & guide to Workforce Just in Time!

# Key factor that influence workforce just in time:



Regular meeting of the workforce :
To discuss work practices,
confront and solve problems.
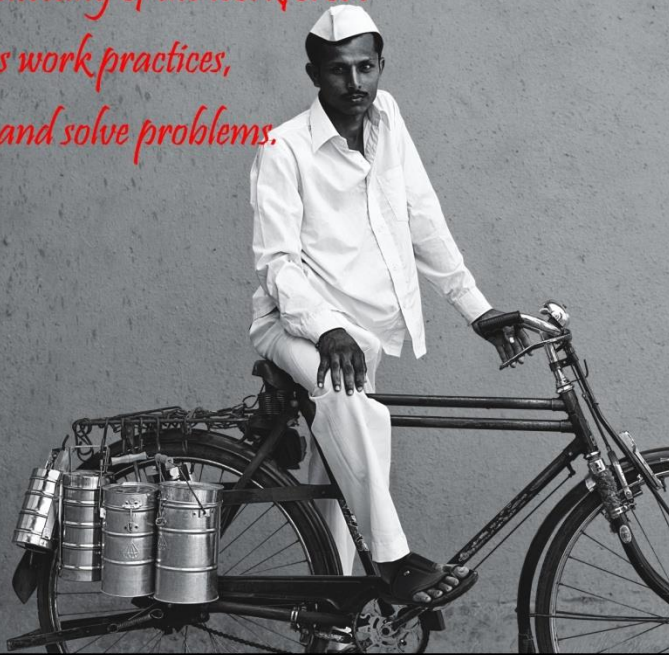
Workforce Just in Time
with Dabbawala's of Mumbai

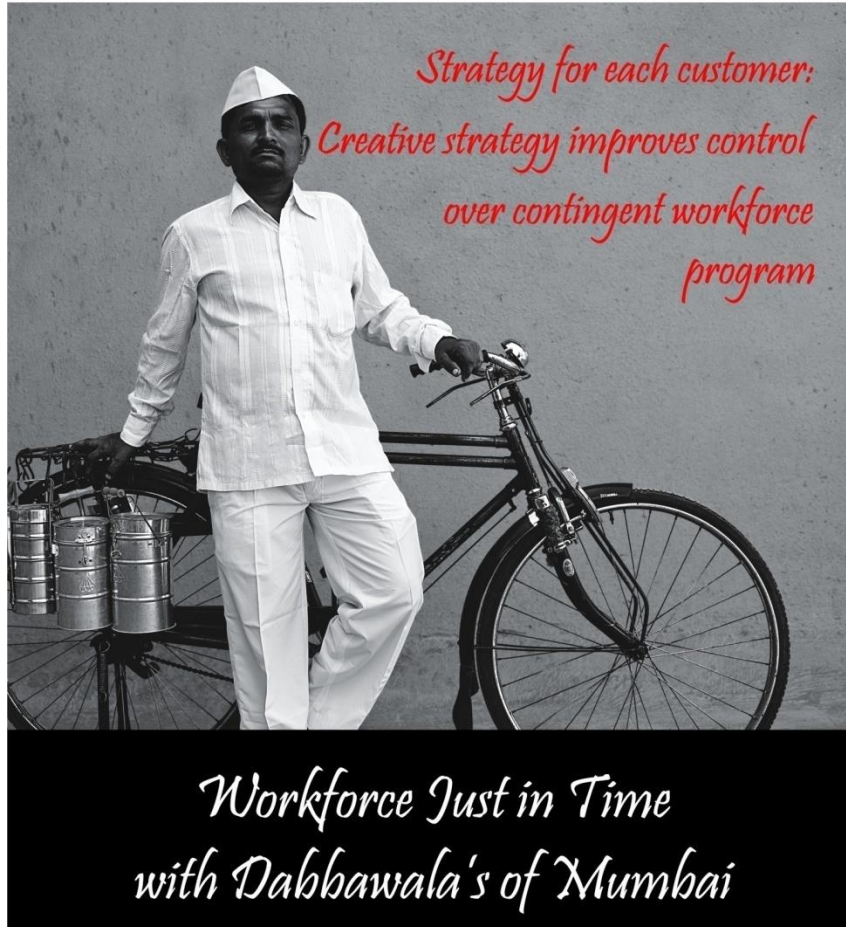## Regular meeting of the workforce:

(e.g. daily/weekly meeting):

To discuss work practices, confront and solve problems; an emphasis on consultation and cooperation (i.e. involving the workforce) rather than confrontation

Dabbawalas operates in a group of 20-25 people. Sometimes group use to be off 5-10 people sometimes it go to 30-35 people. Dabbawalas works in a specific group meets regularly to each other at a time of sorting the Dabba, at a time transporting the Dabba or at a time delivering the Dabba. They used to have their lunch together. At this meet they use to discuss work practices, any deviation and solution to that problem. Deviation such as if any customer delaying for Dabba, any route in undergoing construction any Dabbawalas misbehaviors etc. With the discussion they find out solution for any problem, if they failed to find out solution problem goes to mukadam. Mukadam is responsible for every group almost problem used to solve at mukadam in critical case if mukadam fails to reach that problem then it goes to committee.

Hence I counsel that, in every organization there should have regular meetings of workforce daily weekly basis. Discussion leads to knowledge sharing, problem solving and cooperation, which lead Workforce Just in Time!

# Key factor that influence workforce just in time:



Strategy for each customer:
Creative strategy improves control over contingent workforce program

Workforce Just in Time
with Dabbawala's of Mumbai

**Strategy for each customer:** Creative strategy improve control over their contingent workforce program

Dabbawala system is designed & developed by Dabbawala himself with his own experience or by guidance of senior Dabbawala or Mukadam. There are various types of service provided by Dabbawala.

Individual Dabbawala: Who collect & deliver the Dabba at his own. If the distance between customer home & workplace is less Dabbawala used to collect Dabba at his own & deliver same by himself only.

Group Dabbawala: Who works in group with help of each other, If the distance between customer home & workplace is more Dabbawala used to work in group. In such a case one Dabbawala collect Dabba & another Dabbawala deliver same. Number of Dabbawalas involve in chain depends upon distance to be travel.

For each type of customer Dabbawalas are having different strategy, different coding system i.e. School Dabbawala are having unique strategy, Community Kitchen Dabbawala are having their own approach. Dabbawala to Shopkeepers / Businessmen, Office, Hotel, Mess etc are having different policy.

Hence I counsel that, for every rising organization should have special / specific strategy for their different customer. They should be flexible to produce different models / features, which further leads to more focus on customer as well as customer satisfaction.

# Key factor that influence workforce just in time:
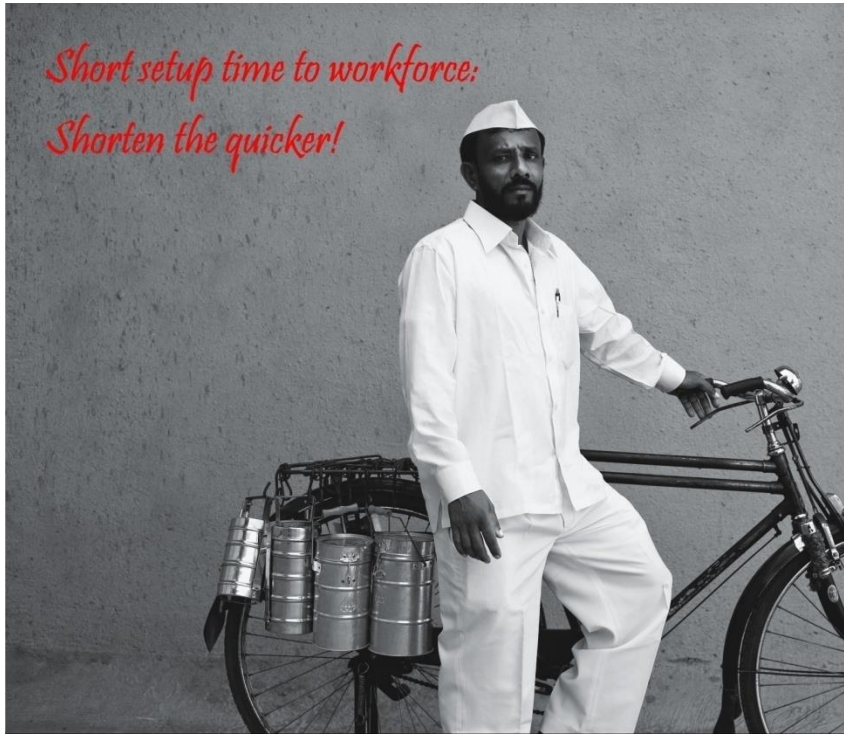


Short setup time to workforce:
Shorten the quicker!

Workforce Just in Time
with Dabbawala's of Mumbai

## Short setup time to workforce:

In Dabbawala system there is no any in house or induction training programs for new comer. You won't find any advertisement of requirement of Dabbawala in newspaper or in job portal like naukri.com or monster.com etc. The entire workforce is allotted through reference only. E.g. most of the Dabbawalas are from same villages (in specific group), relatives to each other. E.g. brother, cousin's neighbor. So most of them are aware about the system, nature of work. Once they join the system he placed to on job training. Since system is very simple & no need of high degree of expertise they immediately understand the system & start working. There are the people whose third generation is working as Dabbawala, for them it's like family business so they required extremely less set up time.

Hence I counsel that, in every organization should minimize their setup time by keeping simple system, allotting employee through references etc. Short set up Time escort Workforce Just in Time!

# Key factor that influence workforce just in time:
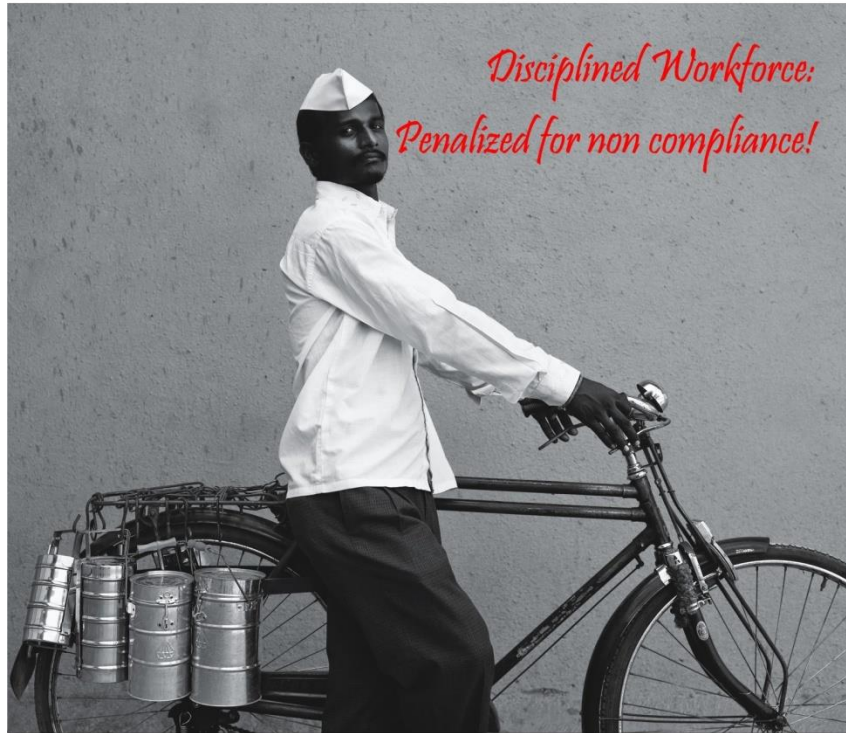


Disciplined Workforce:
Penalized for non compliance!

Workforce Just in Time
with Dabbawala's of Mumbai

**Disciplined Workforce:**

Dabbawalas are penalized for not wearing Gandhi Topi, because of Gandhi Topi he immediately recognized among the crowd of Mumbai. If someone fails ill or has to have leave then he has to inform in advance to mukadam or Dabbawala in his group. There is fine to Dabbawala for not pre-informing leave and Misbehaving with customers. After giving a few warnings, if Dabbawala does not change then he is expelled from the system. Discipline is one of the main reasons of Dabbawala success.

Hence I counsel that, in every organization there should have strict disciplined & regulation to be follow by workforce. Workforce should get penalized for non compliance. If Not penalized for non compliance - then what are the rules for? Disciplined show the way to Workforce Just in Time!

# Key factor that influence workforce just in time:



Co-operation among Workforce:
Dependency on each other
within organization!

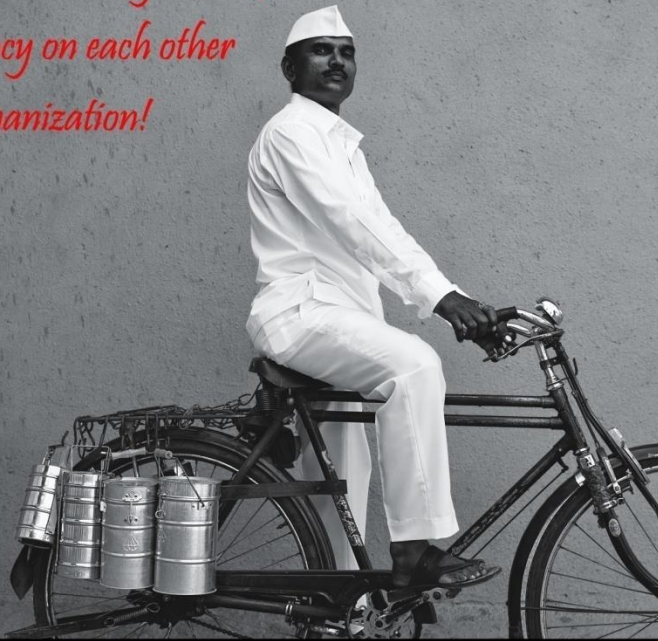Workforce Just in Time
with Dabbawala's of Mumbai

## Co-operation among Workforce

There are no of groups of Dabbawalas in each segment. In the chain of Dabbawala system each Dabbawala dependant on another Dabbawala of his group. Dabba used to collect by one Dabbawala, transfer by another Dabbawala & deliver by another Dabbawala. Dabba collection is group- wise but transportation is shared with other groups. Competition is only up to collection of Dabba from the customer. Profit is shared equally within each group after deducting expenses. All Dabbawalas are emotionally united; they lunch together, sing together and solve the financial need of each other.

All Dabbawalas are emotionally united to each other hence there is huge cooperation between all Dabbawalas. If one Dabbawala fail sick or has some important work to do in such situation his job adjusted by another Dabbawala in group.
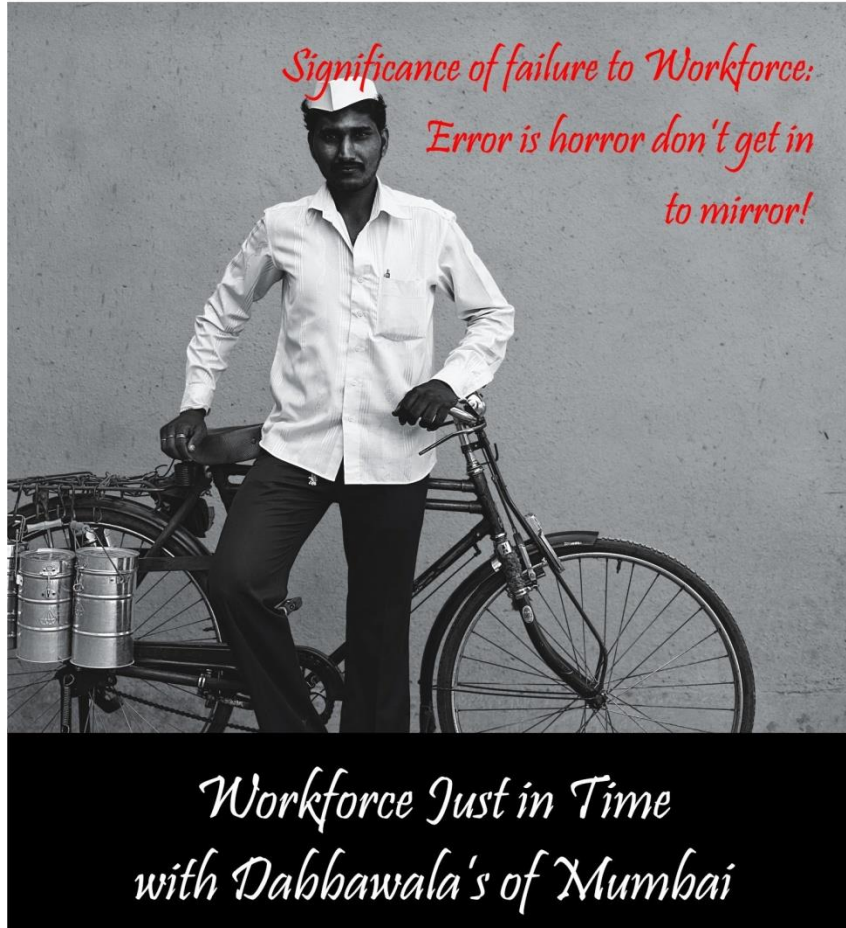
Hence I Counsel that, in any organization there should have cooperation among workforce. Workforce should be dependent on each other so that supportive nature will get developed among Workforce. Cooperation among workforce leads to adjustment which will reduce failure & lead Workforce Just in Time!

# Key factor that influence workforce just in time:



## Significance of failure to Workforce:

Dabbawala always used to be on time with high degree of accuracy, because he knows that what will happen if he fails to deliver Dabba on time. E.g. If he got late his customer will be angry and work will suffer. He knows that there would be big problem takes place if he delivered Mr. Khans Dabba to Mr. Jain (i.e. vegetarian gets non-vegetarian). Most of the customer do not pay bonus however Dabbawala do not force them for bonus and still serve them. Because he seems that if he became force then may lose even what we have

Hence I Counsel that, workforce must be Knowing the significance of failure, which will makes workforce more responsible and serious towards your work & attain Workforce Just in Time!

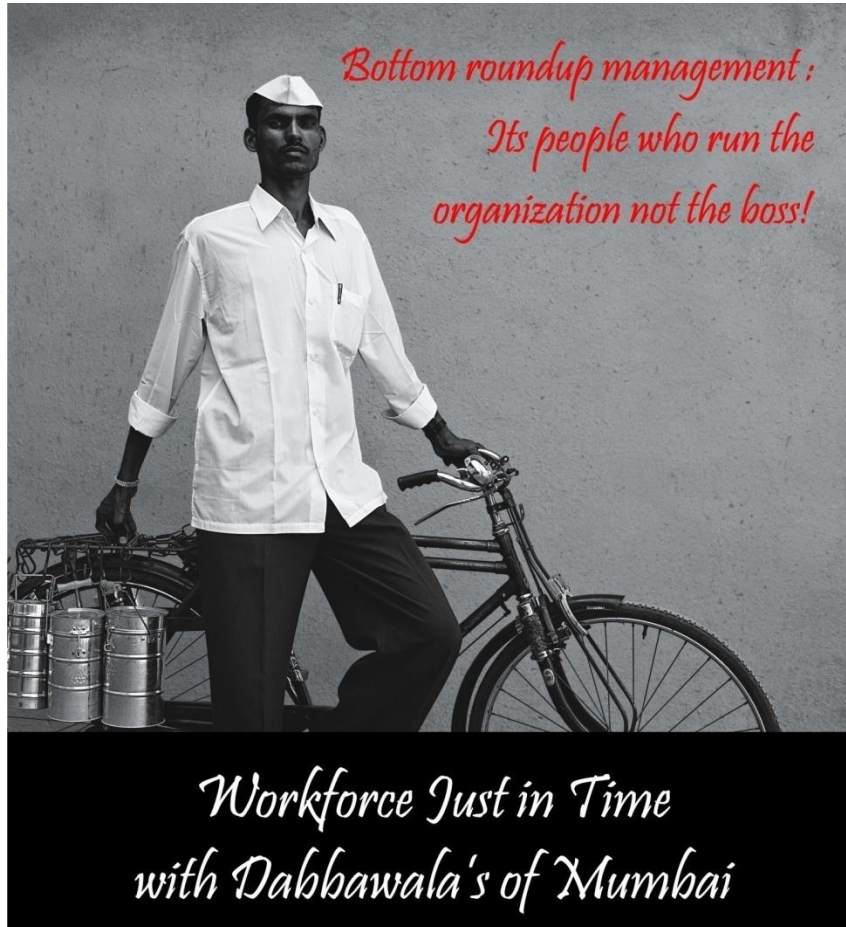# Key factor that influence workforce just in time:
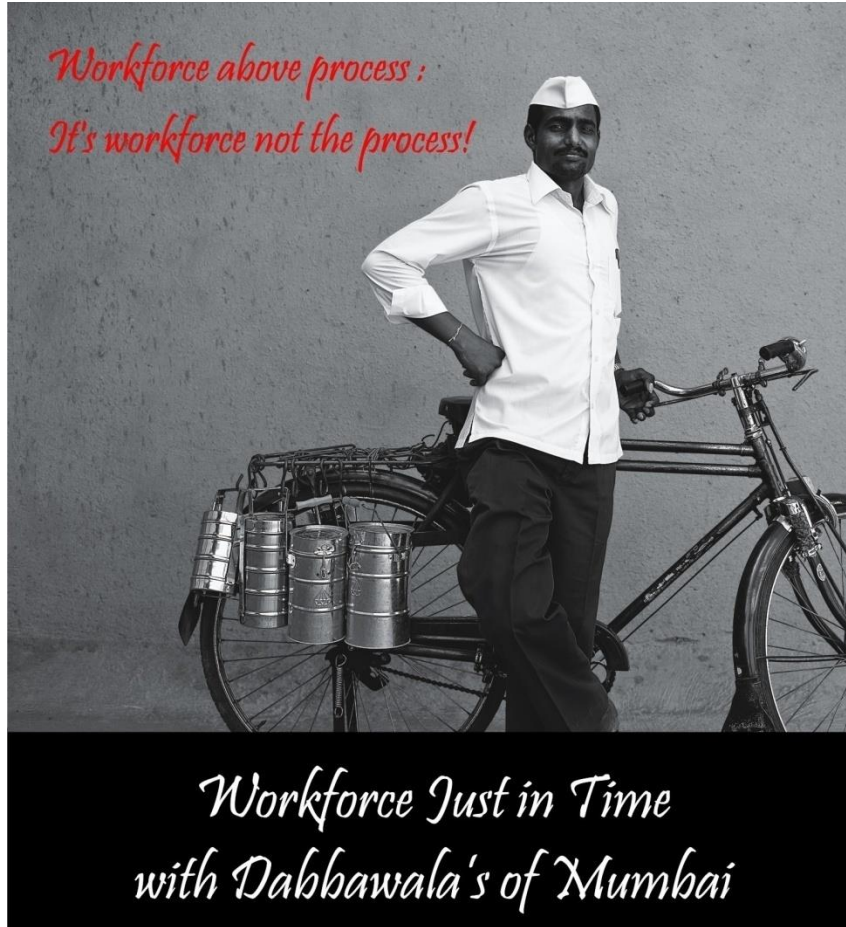


Workforce above process /
Bottom roundup management

There is no written process in Dabbawala system to how to code on Dabba? How to collect the Dabba? How & where to sort Dabba? How to transport Dabba? And Where to deliver the Dabba? Still the Dabbas are delivered at right time and to the right person, it impossible to make full proof process. Its workforce (people in organization) who run the organization not process

In the Dabbawala system everyone has to works. Even higher up (president, general secretary) also works. Stop Leading from glass room. Be lead from employee to lead them. By working with employees, you get to know the ground realities and their earn respect. Every

Hence I Counsel that, organization should concentrate on workforce or work not the process to be followed to get the work done.

# Role of Management:



Bottom roundup management :
Its people who run the
organization not the boss!

Workforce Just in Time
with Dabbawala's of Mumbai

1. Responsible for culture of mutual trust; respect for people.

2. Serve as coaches & facilitators, Responsible for developing workers.

3. Support culture with appropriate incentive system including non-monetary.

4. Provide multi-functional training.

5. Facilitate teamwork.

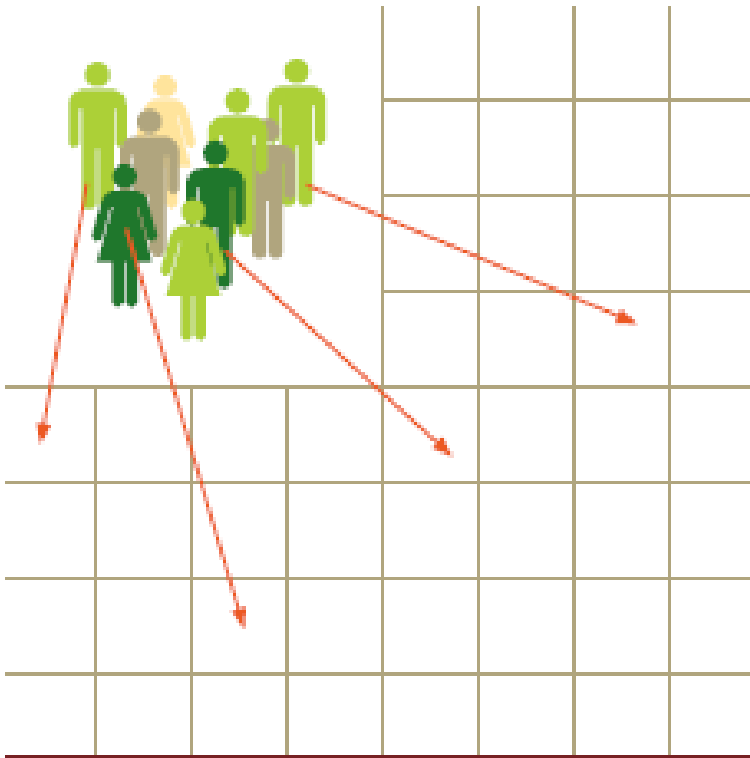# S to Workforce Just in Time!
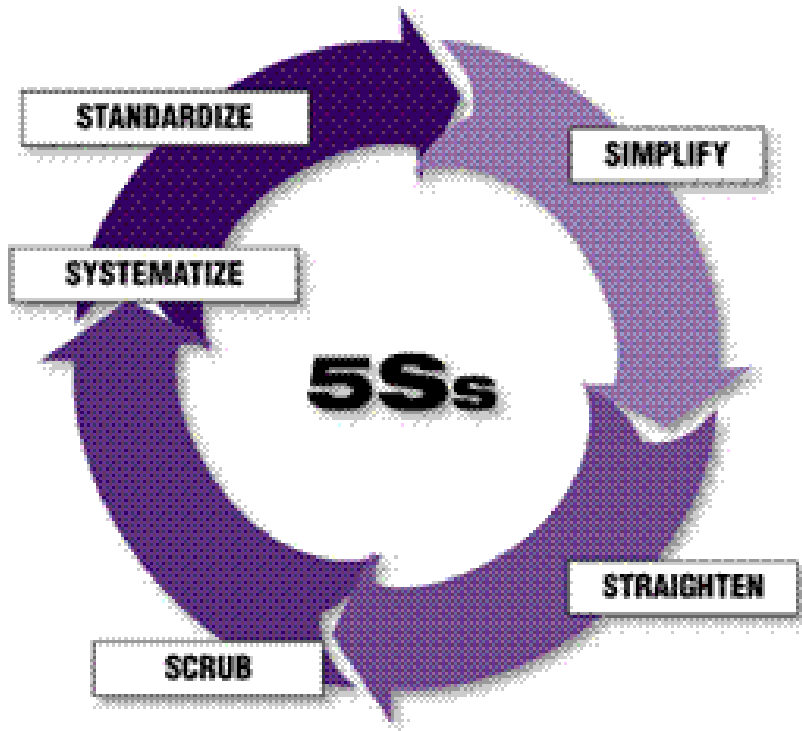


1. Sort/segregate;

2. Simplify/straighten;

3. Shine/sweep;

4. Standardize;

5. Sustain / self discipline

# Techniques that influence workforce just in time :



**Extra workforce for Fault Tolerance:**

Dabbawala works in a group of 20-25 people, sometimes group goes to 30-35 people sometimes reduced to 10-15 people also. There is always one or two extra in each group of Dabbawala, who works in absence of anyone Dabbawala within that specific group. Extra Dabbawala is smart Dabbawala who know the contact details & address of all customers within that group. This is the important technique that achieves error free operation of Dabbawala.

Therefore I Counsel that, Instead of assigning everyone a single job, assign some people as extra having no job. So they flexible to deploy anywhere in the organization as & when needed, which will ensure smooth operation in case of absence of employee & leads to workforce Just in Time!

# Techniques that influence workforce just in time :

Multiskill – Multitask workforce
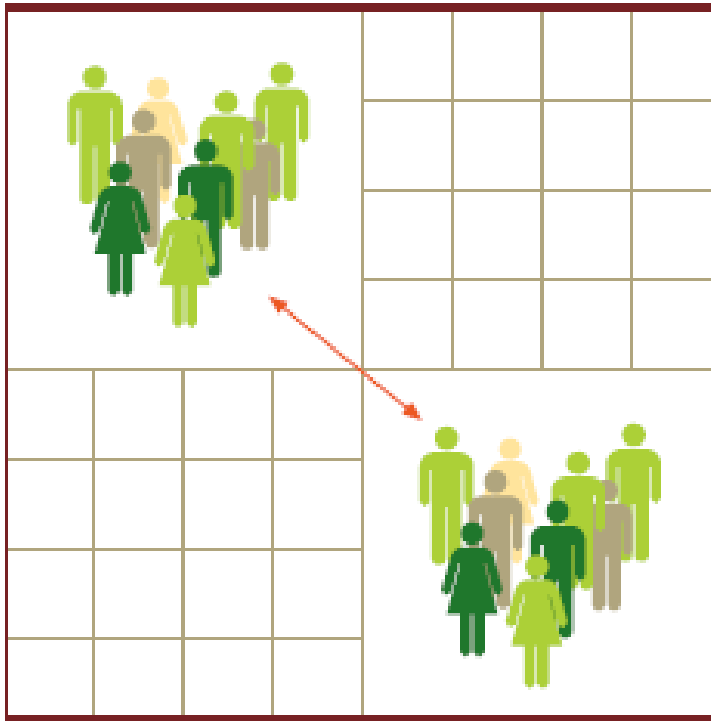
Dabbawala handles multiple activities like collection, sorting, transportation & delivering the Dabba. Even Finance, Customer care etc handle by that specific Dabbawala only.

Hence I Counsel that, Train employee to handle multiple task / activity i.e. one workforce should train on the skill of another workforce. With small amount of training & guidance equipped to them in order to work on different function based on changing demands.

# Techniques that influence workforce just in time :



Demand driven workforce:
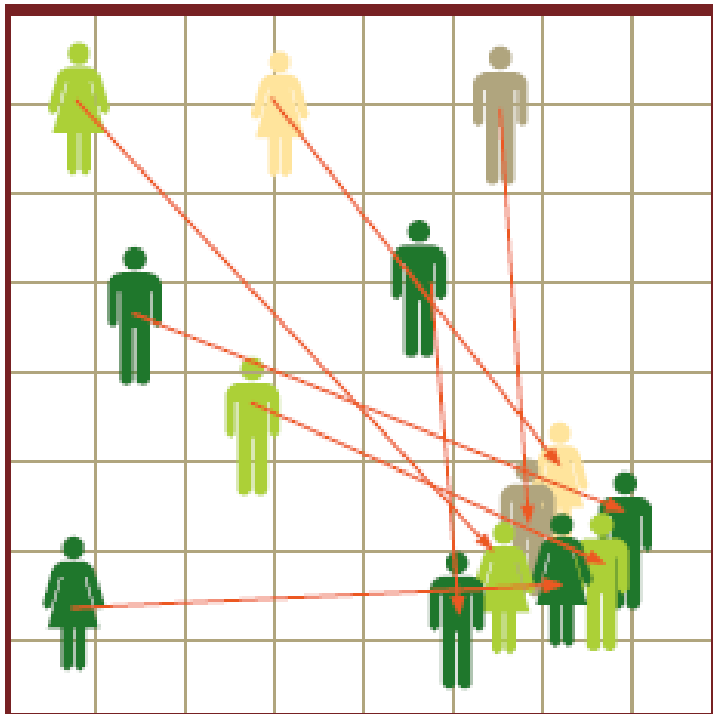
Dabbawalas are flexible & ready to work in any part of organization. They work in different area according requirement. Hence Dabbawalas never failed his operation though there is increase in demand.

Hence I advise that, Train your Workforce to work in any part of organization with increased or decreased in demands since now a day, the market demand is volatile and somewhat unpredictable. So they flexible to deploy as & when needed.

# Techniques that influence workforce just in time :



Discrete Project Work:
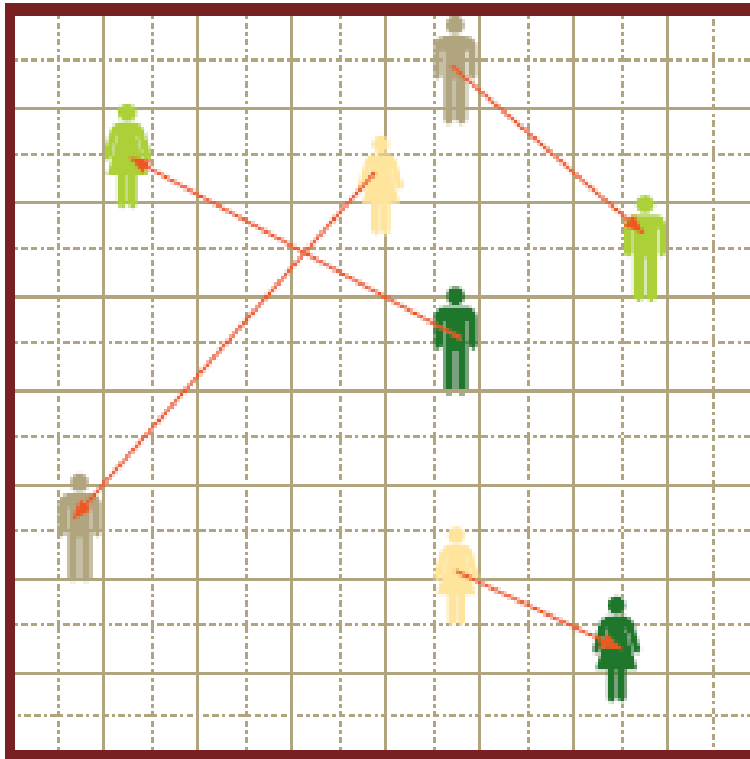
Dabbawalas has divided their work within group i.e. one Dabbawala use to collect Dabba, one used to transfer & another used to deliver the same etc. Hence being illiterate also they able to achieve such a success, since they got small target for individual.

Hence I believe, Big & challenging job break into smaller & discrete project work, so every individual will have modest target & organization should not required highly qualified or experienced staff to perform life-size project.

# Techniques that influence workforce just in time :

Loan Workforce:
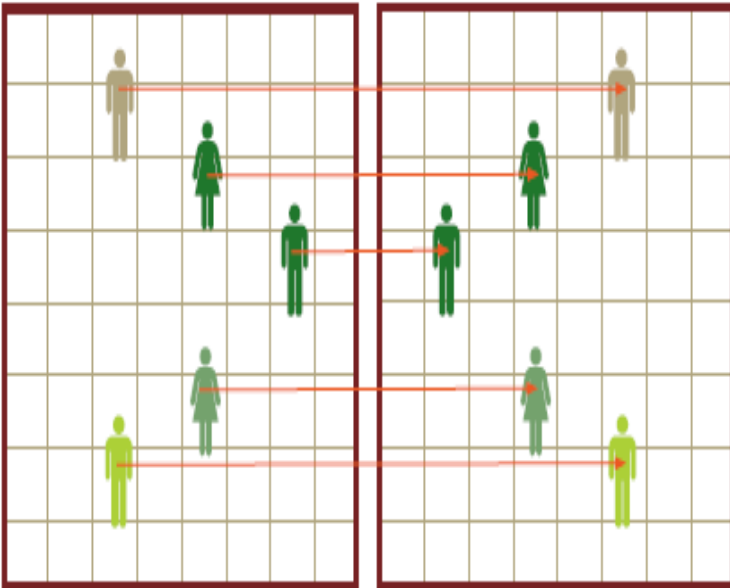


Dabbawalas works in group of 10-20 people if one group is overloaded then workload used to share by another group. All group work in parallel manner. Hence they not an individual customer as well as group of customer have been suffered in the history of Dabbawalas.

Hence I discovered that, Organizations should type up with another organization so that Workforce in one organization can be loaned to another organization in case of heavy workload or lack of demand vice versa. So both organizations should run eternally.

# About the Author:

**Mr. Abhishek Dinkar Ekal** is an Automation Engineering Consultant (MES analyst) who had work from zero level Automation to level two Automation (i.e. PLC, SCADA, MES (Manufacturing Execution System)) in order to attain manufacturing Just in Time! He has vast experience in this field with well known group in India as well as overseas. Some of them are Larson & Toubro, IBM, Bahwan Engineering Company-Dubai, Wipro Technology and KEOPS-Canada.

He deliberately learns & understands Dabbawala network in Mumbai to identify creative Workforce Management System & come up with Workforce- Just in Time with Dabbawalas of Mumbai which will be useful to everyone corporate, MBA institute & social-non social organization to meet Workforce Just in Time! Mr. Abhishek Ekal had interviewed lots of Dabbawala to understand their working, understand their living. He not only understands the system but also works with Dabbawala to have real experience of System & developed live book on Workforce Just in Time! His social nature leads him to initiate & lead various activities towards welfare of Dabbawala & welfare society.