CHAPTER - 3

OPTIMIZATION OF ONBOARDING PROGRAM

STUDY, ANALYSIS AND APPLICATION OF LEAN METHODOLOGY TO A CLASS OF IT ENABLED SERVICES
CHAPTER-3

OPTIMIZATION OF ONBOARDING PROGRAM

3.1 INTRODUCTION

The IT enabled service sector processes is an important and core activity of any Multinational organization, where in the concerned management has to exercise at most care in foreseeing the different activities involved which helps in shaping the organization reaching the goal with precision. The crucial processes which include the activities in hierarchy namely Onboarding, Training, Payroll processing, Payments in a IT enabled services which may be defined as a twofold service sector in the sense that it has to meet the organization's thrust with precision thus avoiding the employee dissatisfaction.
The onboarding process would ensure IT, payroll, training and facilities could collaborate seamlessly and with ease to ensure everything was in place when a new joiner walked in the door," says DE POTTER. "That meant defining a structured onboarding process that incorporated every task – from equipping the desktop to reserving a parking space."

From an employee perspective first impressions counts. Effective onboarding gives the company an opportunity to showcase its values in action—laying the foundations for enhanced job satisfaction and loyalty, which ultimately results in long term productive employee relationships."

The doctoral work in this Thesis is mainly aimed at the study and analysis of the crucial activities of IT enabled service sector in a Multinational organization and this piece of novel work with the application of Lean philosophy which in the opinion of the author prone the entire analysis in an orderly scientific fashion to optimize the processes which results in enormous financial savings as well as employee satisfaction.

The author in this chapter visualizing the core Onboarding activity studied the nomenclature and modus operandi of the entire proceedings in a multinational IT enabled Services Company. Generally the today's IT companies concentrate on this activity to impart the prerequisite information to the new recruits in a most minimal time utilizing the best available resources so as to maximize the returns in the shape of benefiting the financial spending of the company. The basic information and introduction to the concept of Onboarding is presented here under..
Onboarding, known as organizational socialization, refers to the mechanism through which new employees acquire the necessary knowledge, skills, and behaviors to become effective organizational members and insiders. Tactics used in this process include formal meetings, lectures, videos, printed materials, or computer-based orientations to introduce newcomers to their new jobs and organizations. Research has demonstrated that these socialization techniques lead to positive outcomes for new employees such as higher job satisfaction, better job performance, greater organizational commitment, and reduction in stress and intent to quit. These outcomes are particularly important to an organization looking to retain a competitive advantage in an increasingly mobile and globalized workforce. In the United States, for example, up to twenty five percent of workers are organizational newcomers engaged in an Onboarding process.

Onboarding is a multifaceted operation influenced by a number of factors pertaining to both the individual newcomer and the organization. Researchers have separated these factors into three broad categories new employee characteristics, new employee behaviors, and organizational efforts. New employee characteristics are individual differences across incoming workers, ranging from personality traits to previous work experiences. New employee behaviors refer to the specific actions carried out by newcomers as they take an active role in the socialization process. Finally, organizational efforts help facilitate the process of acclimating a new worker to an establishment through activities such as orientation or mentoring programs.
Research has shown evidence that employees with certain personality traits and experiences adjust to an organization more quickly. These are a proactive personality, the "Big Five", curiosity, and greater experience levels.

The Big Five personality traits—openness, conscientiousness, extraversion, agreeableness, and neuroticism—have been linked to Onboarding success, as well. Specifically, new employees who are extraverted or particularly open to experience are more likely to seek out information.
Socialization tactics, or orientation tactics, are designed based on an organization's needs, values, and structural policies. Some organizations favor a more systematic approach to socialization, while others follow a more "sink or swim" approach in which new employees are challenged to figure out existing norms and company expectations without guidance.

Regardless of the socialization tactics utilized, formal orientation programs can facilitate understanding of company culture, and introduces new employees to their work roles and the organizational social environment. Formal orientation programs may consist of lectures, videotapes, and written material, while other organizations may rely on more usual approaches. More recent approaches such as computer-based orientations and Intranets have been used by organizations to standardize training programs across branch locations. A review of the literature indicates that orientation programs are successful in communicating the company's goals, history, and power structure.

Historically, organizations have overlooked the influence of business practices in shaping enduring work attitudes and thus have continually underestimated their impact on financial success. Employees' job attitudes are particularly important from an organization's perspective because of their link to employee engagement and performance on the job. Employee engagement attitudes, such as satisfaction with one's job and organizational commitment or loyalty, have important implications for an employee's work performance and intentions to stay with or quit an organization. This translates into strong monetary gains for organizations as research has demonstrated that individuals who are highly satisfied with their jobs...
and who exhibit high organizational commitment are likely to perform better and remain in an organization,

3.2. THE STUDY

A multinational IT organization is chosen for the study where regular recruitment processes is being undertaken throughout the year. The aim of applying the lean methodology by using novel statistical / Operations research techniques so as to maximize the benefits in terms of saving lakhs of rupees of spending on Onboarding activity, thus simultaneously streamlining the existing procedural activities which help in enhancing the overall performance. Once the Onboarding activity is completed the new recruits are to be handed over to respective process owners in (Human resource data base system) SAP and duration for this activity is designed for 3 days. The proposed study is aimed to optimize and streamlining the Onboarding activity including the handover process time.

3.3 THE CURRENT STATUS

Current process

The current process of the Onboarding activity at the organization is basically organized in couple of days and further handing over process will be completed in 5 days designed as

Day 1  Documentation
Day 2  Induction, process allocation, physical handover
Day 3  Data entry in Synergy
Day 4  Data extracted in to SAP
Day 5  Employ ID creation and handover in Map.

Existing Process

3.3.1 Project customer value proposition of the IT multinational is,

Project's Customer Value Proposition

- Employee satisfaction
- Optimization of resource utilization
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Project Deliverable Details

- For effective utilization of new joiners in 1B and above levels, defining a new process for optimizing the cycle time for creation of employee ID.
- Defining a new Standard Operating procedure (SOP) for Id creation and handover through a system (MAP).
- Optimization of Onboarding process by minimizing the service time.

Project Execution Challenge

- Internal Go aheads from Stakeholders
- Location constraints
- Creation of Login ID, Email ID issues for 1B and above.

3.3.2. The objective and goal of lean philosophy application is defined as,

Objective – Optimization of On Boarding Process to ensure

- Faster processing of joining formalities
- Faster Employee deployment post joining
- Retaining employee 'joining experience'
- Optimizing the service time on documentation day.

Goal - Optimize the On Boarding process

Baseline - Currently on boarding program was conducted in 2 days and Employee MAP handover time is DOJ + 5 days and the service time per employee on day 1 is 8 hours.
3.3.3. The current process of the Onboarding activity at the organization is basically organized in couple of days and further handing over process will be completed in 5 days designed as

Current Process flow

Day 1  Documentation
Day 2  Induction, process allocation, physical handover to process spoc
Day 3  Data entry in data base (Synergy)
Day 4  Data extracted in to System (SAP)
Day 5  Employ ID creation and handover in Map.

3.4. ANALYSIS OF THE PROBLEM

3.4.1. To optimize the onboarding program and handover time the procedures discussed in section 3.3 is applied and the resultant pilot study covering six locations of the organization is presented in detail.

3.4.2 PILOT STUDY

The application of lean tenants in a scientific manner pave way in analyzing the improvements regarding Onboarding and handover time in order to establish the truth of savings. It is proposed to carry out a pilot study at 8 different locations of the organization for which the results of the pilot study suggested the core important 3 areas of Optimization activities are listed and presented.
The pilot study organized at 8 different locations and the rollout status is presented as under

Roll-Out Status

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>ROLL OUT STATUS</th>
<th>STANDARDISATION TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td>DONE</td>
<td>1. SOP</td>
</tr>
<tr>
<td>Kolkata</td>
<td>DONE</td>
<td>2. Location Capacity Chart</td>
</tr>
<tr>
<td>Powai</td>
<td>DONE</td>
<td>3. Training of Stakeholders</td>
</tr>
<tr>
<td>Pune</td>
<td>DONE</td>
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<tr>
<td>Hyderabad</td>
<td>DONE</td>
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<td>Chennai</td>
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<td>Belapur</td>
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<tr>
<td>Bangalore</td>
<td>DONE</td>
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</tbody>
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The detailed information of the pilot study and the feedback scores is depicted in the following table.
Post the pilot study analysis comprehensively reveals the fact that the application of lean tenants proved in Optimization in time, effort which resulted in enhancing employee experience.

- **Average Time Saved per Induction** (~120 minutes saved per day) in Documentation Process
- **Effort Optimisation**
  - More than 81% candidates now came with filled forms – Due to Sample Filled Forms
- **Experience Enhancement**
  - Onboarding Feedback Scores have gone up at Locations post new Process Roll-out
3.4.3. Based on the information in order to streamline the procedures, the lean tenant and before and post standardization of work is designed with a flowchart to further investigate and to carry out the suggested processes.
3.4.4. LEAN TENETS USED The lean tenants applied to Optimize the onboarding process which resulted in financial savings as well as reduction in employee dissatisfaction is detailed below.

3.4.4.1. Creative Thinking

- What problem did Creative Thinking address?
  
  ‣ In Old process all the newly joined people fill the forms at induction venue. The forms filling consumes more than 4 hours.

- How was it adapted
  
  ‣ By giving Sample filled forms along with offer letter to newly joined

- How was it helped
  
  ‣ More than 81% of the newly joined came to induction venue with filled forms. This saves huge effort of HR team. The total service time per new joiner on day 1 of on boarding was reduced to 3 hrs from 8 hrs.

3.4.4.2. Standard work

- What problem Standardized work address?
  
  ‣ Previously, the ID creation and handover to operations through MAP for all the newly joined was taking 5 days.
• How Standardized work adapted?

  ↓ A new SOP was defined for ID creation and MAP handover time through Map for IA level and IB and above levels

• How Standardized work helped?

  ↓ By Tightening service levels towards ID creation and faster Map hand-over, The ID creation and Map handover time for IB and above levels is changed from DOJ +5 days to DOJ +1 day and for IA level the ID creation and Map handover time was reduced from DOJ +5 days to DOJ +3 days.

3.4.4.3. Single piece flow

• What problem Single piece Flow address?

  ↓ In the previous OB Boarding process the total service time per new joinee is 8 hours.

• How was it adapted?

  ↓ By creating parallel service lines for documentation verification and series service lines for Bank account opening and Medical.

• How was it helped?

  ↓ This minimizes the waiting time at each stage and improved the efficiency of the process. A candidate who arrives to the venue can leave
within 60 minutes and thereafter for every 10 minutes one candidate is leaving from the system

3.4.4.4. Operations research techniques

The Onboarding activity is analyzed in order to reduce its occupation time from 2 days to single day operation without causing any hindrance to the original planning of 2 days and an OR technique is applied to this real life practical problem. The application of Erlangean queue model to assess the congestion for a single day proved to be very effective in optimizing the onboard service time.

3.5 Erlangean service time distribution

Erlang proposed the decomposing the service time distribution in to a collection of exponential distributions, by assuming the system in steady state with poison arrivals and exponential services and 3 servers in the system. The generalization of an exponential distribution having one parameter $\mu$ to a two parameter combined distribution is termed as an Erlangean distribution (Gamma). The Erlang service time distribution whose density is given by

$$G(t, k, \mu) = \left( \frac{c_k}{(k-1)!} \right) t^{k-1} e^{-kt} \mu^t, \quad \forall \ 0 < t < \infty, \ c_k \text{ is a constant.}$$

As per Kendall's notation the model can be represented as $(M/ E_k / C N / FIFO)$.

$M$ The arrivals follow Poison Distribution.

$E_k$ The services follow Erlangean service time distribution.

$C$ Number of servers = 3.
The capacity of the system is finite.

FIFO Service Mechanism First in First out.

The probability that \( n \) arrivals occurs in the system in the time interval

\[
P_n(t) = \left(\frac{\lambda t}{n!}\right) \cdot e^{-\lambda t} \quad n > 0.
\]

The Erlangen Model \( B(X) = \frac{(r \mu \times (r \mu_x)^{r-1} \cdot e^{-r \mu_x})}{(r-1)!} \)

\( r = \) Number of Stages, \( r > 0. \)

**Notations**

\( P_0 = \) Probability of no customers in system

\( P_n = \) Probability \( n \) customers in system

\( \rho = \) Utilization factor (% of time server is busy)

\( L = \) Average number of customers in system

\( L_q = \) Average number of customers in queue

\( W = \) Average time in system
\( W_q = \text{Average time in queue} \)

\( K = \text{Number of servers} \)

\( N = \text{Capacity of the system} \)

**Performance Measures**

\[ \rho = \frac{\lambda}{\mu} < 1 \]

\[ P_0 = \left[ \frac{k^k \rho^{k+1}}{k! (1 - \rho)} + \sum_{n=0}^{k} \frac{(k \rho^n)}{n!} \right]^{-1} \]

\[ L_q = N \cdot \frac{k^k \rho^{k+1}}{k! (1 - \rho)^2} \cdot P_0 \]

\[ W_q = \frac{L_q}{\lambda} \]

\[ W = W_q + \frac{1}{\mu} \]

\[ L = \frac{\lambda}{\mu} \]

The total load or intensity of the system = \( \frac{\lambda}{\mu} = \text{Rate of arrivals / Rate of services} \).

Based on Little's theorem,

The average number of customers in the system = \( \lambda T \)

\[ = \text{rate of Flow} \cdot \text{Avg. time spent in the System} \]

- The function of the System: Upon departure of first customer, a new customer is allowed to enter the service facility.
- After finish Stage -1 \( \rightarrow \) Enter stage 2.
- Only one customer is allowed in the service facility.
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• Total service time per customer = Minimum of 65 Minutes (40 Minutes for induction + Waiting time at servers + 15 minutes for document Verification + 10 minutes for bank account opening)

Let $\lambda$ be the arrivals rate (number of jobs already in the system and $\mu$ be the service rate.

The Service rate at 1st Stage per hour = $60 / (15/2) = 8$.

The Service rate at 2nd stage = $(60)/10 * 1 = 6$ per hour.

Performance Measures

For 50 New joinee

$p = 3 / 6 = 0.5$

$P_0 = 0.34$

$K =$ Number of servers = 3

$L =$ Average number of customers in system = 7

$L_q =$ Average number of customers in queue = 6

$W =$ Average time in system = 2.29 hrs = 138 Min

$W_q =$ Average time in queue = 2.125 hrs = 128 Min

Total service time = $(50*25)/3 = 416$ minutes.

3.6. BUSINESS SITUATION

3.6.1. The application of lean tenants philosophy resulted in synchronization of the Onboard and handover time processes wherein the distinct advantages after the
Application proved to be significantly effective and the resulted process differences is highlighted in the following table.

3.6.2. The successful implementation of lean methodology perhaps in the opinion of the author is being applied for the first time in optimizing the Onboarding and handover times. The successful implementation of lean tenants in optimizing the onboarding process is furnished graphically.

The Total time spent by new joiner in the system was reduced by 73%.

The Id creation and Map handover time for < 50 joinee 1A level was reduced by 60% and for 1B and above levels reduced by 80%.

The Id creation and Map handover time for > 50 joinee in 1A level was reduced by 40% and for 1B and above levels reduced by 80%.
3.7. FINANCIAL BENEFITS

The effectiveness of the application of the lean techniques resulted in huge financial gains to the organization and the financial gains are shown here under:

- The Total number of Joinee per annum = 15300.
- The average number of new joinee per month in IT MNC across all locations = 1275.
- The average pay out for 1A employee per day = Rs 335.
- By Changing the DOJ from Pre joining day to Day 1, The Monthly realization = 1275*335 = Rs 4,27,125.
- The annual realization = 15300*335 = Rs 51,25,500 per annum.