



Shopfloor Performance Appraisal System

IT - Business Requirements Document

V1.3

Revision History			
Date	Version No.	Summary of Changes	Author
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1. Background

Currently the Performance Management for the blue-collar employees of BAT Bangladesh is done using Microsoft Excel and a back-and-forth process via emails. The system requires a massive overhaul to cater to ever-increasing business needs and number of employees as well. Simplification is needed given the lengthy time required to conduct appraisals for over 1000 blue-collar employees. For this purpose, an automated and digitized performance management system is of high requirement.

2. Business Process Overview

2.1 Current Process

The current performance appraisal process is conducted manually using printed paper forms. The process can be summarized in 3 steps:

1. **Performance *Objective-Setting*:** Line Managers of respective Blue-Collar Employees set objectives using a MS Excel sheet. These objectives are of broadly two types: Production-based objectives (for teams & individuals) & Individual Development Objectives
2. **Year-End *Appraisal*:** At the end-of the year, line managers evaluate the previously set objectives against the results delivered throughout the year. Upon completing the appraisal Excel form, a conversation is had between the line managers and their deputies. This conversation is regarding their performance and how they can improve in the upcoming year; and is sealed with remarks & signatures from both parties.
3. **Human Resources (HR) *Appraisal Check*:** During the Appraisal process, HR performs a few necessary hygiene checks to ensure that the whole process runs smoothly. Firstly, the appraisal progress is tracked centrally by HR. Secondly, during the process, it is tracked whether anyone has been proposed a promotion wrongly (i.e., whether employees with previous disciplinary issues have been proposed a promotion etc.). Thirdly, HR is in charge of ensuring that the appraisal process is completed within the year so that appraised employees receive their increased salary at the start of January. Lastly, HR conducts a check to ensure that performance appraisal across Operations is normally distributed (bell-curve) to identify the best performers, while also avoiding rating-inflation. All these processes are done via email in the current process.

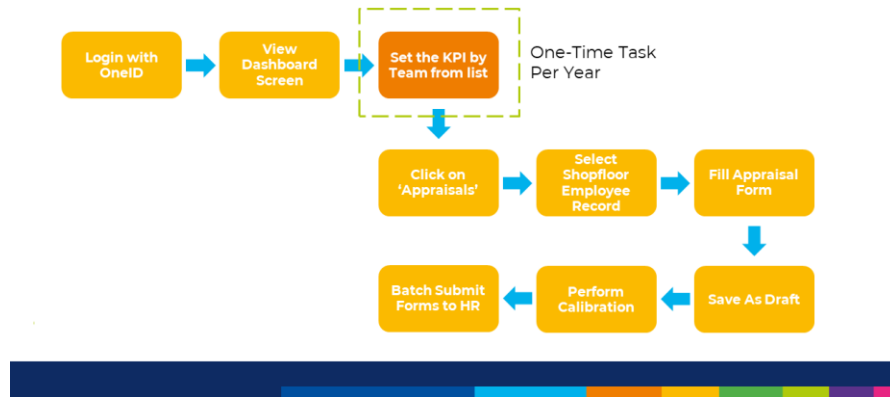
2.2 To-Be Process

To facilitate simplification, although the roles of the involved parties remain the same, the process will be digitized using a system software. The system will have 3 viewpoints for the 3 major process-owners: **line managers, blue-collar employees & HR managers**.

Section A : Operations Line Manager View

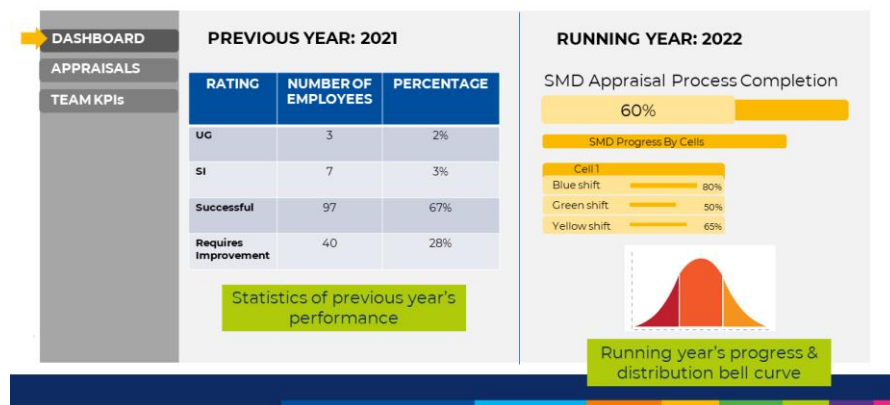
The Line Manager is in charge of setting the **KPIs and Deliverables** of the blue-collar employees they are in charge of. They are also the ones to do the appraisals at the end of the year.

Process Flow



A dashboard is required to allow LMs to view the **previous year's statistics** to compare against the running year's performance. A progress bar for the function, as well as a breakdown of the progress by cells and shifts are required to receive visibility of the rates. A **bell-curve graphs** is to showcase real-time rating distributions based on the calculated scorings.

LM View: Dashboard



Machine KPIs stay consistent for all members of a team. As such, group KPIs can be selected from the Master KPI list to be applied for all team members. These will later be auto-filled in the employee's individual records.

LM View: Set Team KPIs



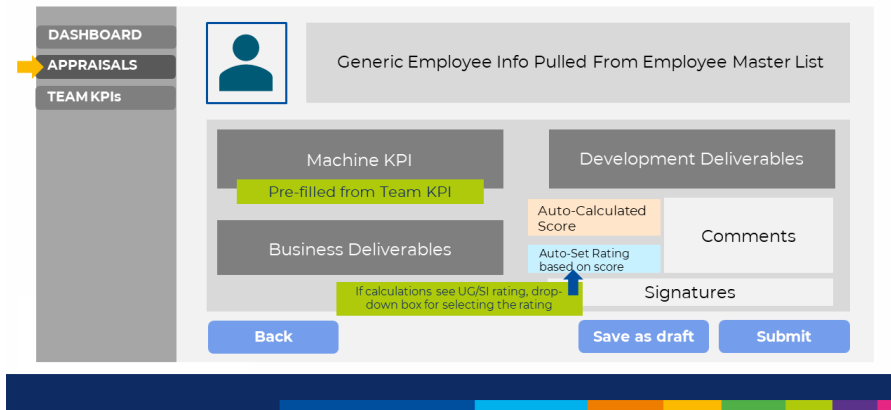
The Appraisals tab will contain the records of the employees by Cell and the status of the submission.



Selection	ID	NAME	CELL	TEAM	SHIFT	SUB-FUNCTION	RATING	STATUS
<input type="radio"/>	851291	X	1	1	Blue	SMD	Requires Improvement	Submission Pending
<input type="radio"/>	851292	Y	1	2	Green	SMD	UG	Submission Pending
<input type="radio"/>	851293	X	1	2	Yellow	SMD	Successful	Approval Pending
<input type="radio"/>	851294	M	1	4	Blue	SMD	Successful	Requires Changes
<input type="radio"/>	851295	N	1	5	Green	SMD	Successful	Approved

The Generic Info can be pulled from Employee Master List or from our existing payroll system through an API. Machine KPIs will be auto-filled and the deliverables can be selected on this screen. Once the score for each parameter has been placed, the final score will be auto-calculated and a rating is given based on the threshold. For those with Outstanding rating, the LM can select from a drop-down list whether to award SI or UG rating. Once the signature and comment has been placed, save as draft to wait for calibration, before submission to HR.

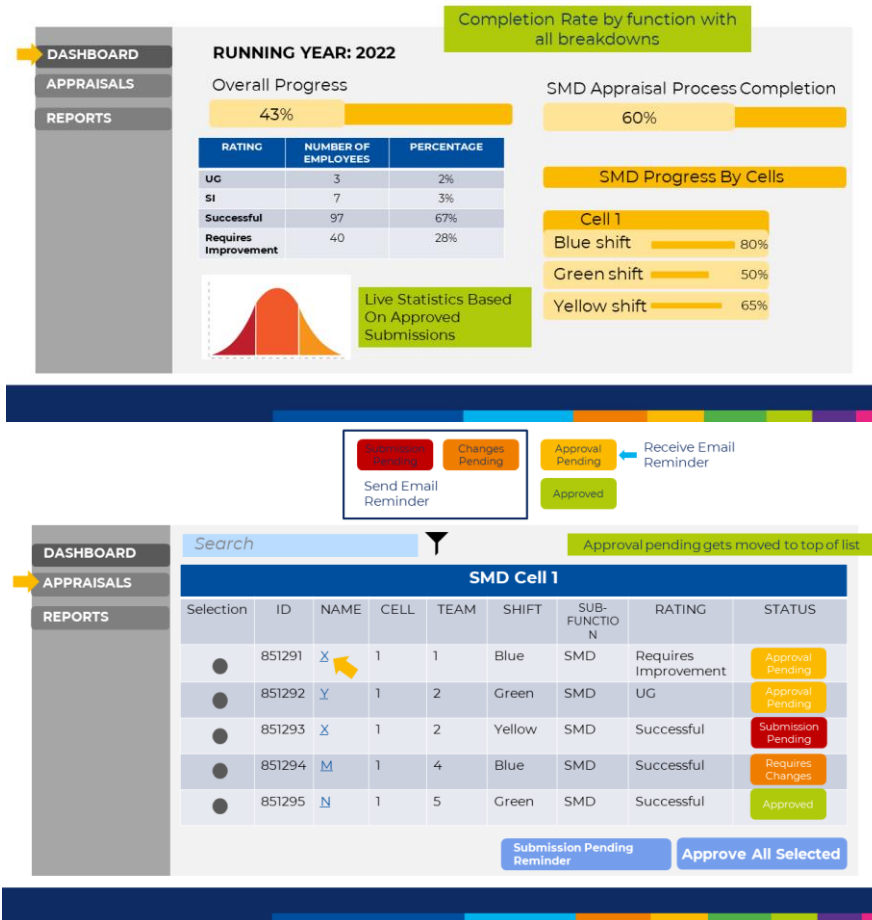
LM View: Employee Record



Section B : HR View

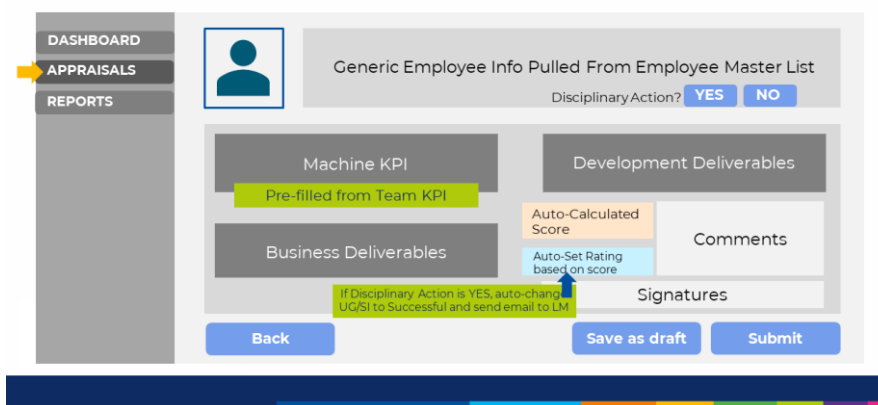
HR managers will get a holistic perspective on the overall progress of the appraisal- this is essential to ensure that performance appraisal across Operations is normally distributed (bell-curve) to identify the best performers, while also avoiding rating-inflation. All these processes are done via email in the current process. This will require consistent view of a live dashboard showing the ratings' distribution across the various sub-functions of operations. HR personnel will also be given the opportunity to revoke any rating decision to ensure that no one is getting incorrect ratings.

HR View: Dashboard



Only for those with Outstanding (UG/SI) rating, HR is required to make a decision for Disciplinary Action. If there is a DA, the rating will automatically be changed to Successful.

LM View: Employee Record



DASHBOARD
APPRAISALS
REPORTS

Generic Employee Info Pulled From Employee Master List

Disciplinary Action? **YES** **NO**

Machine KPI
Pre-filled from Team KPI

Business Deliverables

Development Deliverables

Auto-Calculated Score

Auto-Set Rating based on score

Comments

Signatures

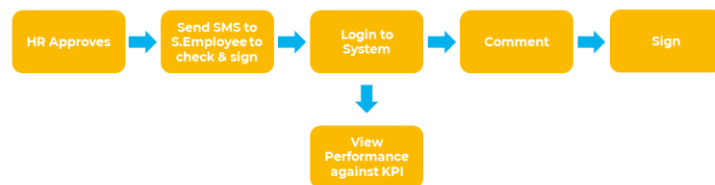
Buttons: Back, Save as draft, Submit

If Disciplinary Action is YES, auto-change UG/SI to Successful and send email to LM

Section C : Blue-Collar Employee Workflow

Blue-collar employees will get the view of their own appraisal only and will get to sign-off the approval – even if we automate the process, we must ensure full transparency of the performance appraisal as it is linked to the employees’ future in the company. Once HR approves the submission, a notification is sent to the employee via SMS. The employee can then login to the system via a kiosk or tablet setup in the factory. They can then view, comment and signoff on the appraisal form. They will also be able to view their progress against the KPIs set.

Process Flow



3. System Requirements

BAT Bangladesh will be going into a service modality for this system i.e. the System Development Company is to assume responsibility of providing hosting, hardware and any additional requirements in order to provide end-to-end service.

Feature	Description
Access Authorization & User Verification	<p>The software will be used by different stakeholders, this includes:</p> <ul style="list-style-type: none"> a. Blue-Collar Employees: Our Blue-Collar Employees currently work at 3 different locations- Dhaka Factory, Savar Factory & Kushtia GLT. We refer to our blue-collar employees as shopfloor employees and they are mostly composed of individuals with the highest-level of education being Diploma. This system will allow their performance appraisal to be done digitally. They need to be able to see ONLY their own profiles. b. Line Managers: LMs of these blue-collar employees will be conducting their performance appraisal, meaning that they will have LM profiles on the platform which can be accessed using their One IDs & set passwords. c. HR personnel: Selected HR personnel will be given access to the performance appraisal scores and will be given the access to approve the final scores (since the number of employees is large, access should allow multi-select approvals)
Optimized & User-Friendly UI	Since this system is to be used by blue-collar employees, need the system to be fully optimized, as well as have a user interface which is easy-to-

	navigate as well as assess all information. Simple words, familiar icons & easy-to-understand user interface.
Individual KPI Dashboard	A part of their performance appraisal involves meeting a set of machine-based KPIs which are usually team-based as well. Each employee should be able to view their progress in meeting their KPIs in progress bars against each.
Data Migration Capability	Two types of data migration are needed here: a. Personnel Data migration: We have over 1000 employees currently and this number has been increasing every year. All their information must be a part of the system
Backend Database Capability	We have over 1000 employees currently and this number has been increasing every year. All their information must be a part of the system and needs to be updated as employee count changes
Notification System	Types & frequency of notifications is stated as follows: a. Notification every 15 days to remind shopfloor employees to check KPI progress bar b. Notification every 5 days during performance appraisal cycle to complete the appraisal & set objectives for the year
Download Capability	Since shopfloor employees are used to hardcopies for their appraisal, download option should be available and can be printed if needed.
Digital Signage	To approve, we will require digital signage system for shopfloor employees.
Record Edit	Before the final sign-off, records of performance appraisal editing should be an option for all line managers. After sign-off, only HR will be able to change & edit.
Logic for promotions	Promotions can be suggested by different departments but only approved centrally by HR. Additionally in the case of prior disciplinary issues or red marks, HR will have visibility and can decline promotions.
Consolidated Dashboard	Finalized dashboard with all approvals will be visible and can be downloaded in the form of a ppt/pdf to be sent to Heads of function.
Data Synchronization	a) Employee Data: (Conditional) Retrieve generic data from payroll system b) Machine Data Sync: (Conditional) There is currently a system in place to measure machine data. API connectivity may allow for the data to be taken in from the machine software itself and entered in KPI progress bars
KPI Masterlist	A categorical list with all variations of KPIs set. KPIs can then later be selected for teams and individuals from this list.
Digital Access & Signage Hardware	Hardware on which the Shopfloor employees can login to the system, view their dashboard and sign-off on their appraisal document.

Infrastructure, Architecture, Technology Stacks	
OS Type	Windows Server 2016 Standard
Hosing	VM in Local DC
Backend Development	Asp Net core. Latest version of Angular framework
Backend DB	MS SQL 2019
Host	Web Server (IIS)
Client Browser	Must compatible Edge
Application-level Security	

System Access	<ul style="list-style-type: none"> • Generic user IDs Must not be used. All users Must have a unique identifier (user ID) for their individual use. (Like Super user, Admin,) • Administrative user ID's Must only be used for system administrative activities. Personal user IDs Must be used for all other activities. • Password must not save in DB in any format, rather use Store passwords using reversible encryption technology. • Audit Trail Report for every activity. • Report for user (role)base menu access. • Where possible, Business Systems Shall enforce time outs of 15 minutes. Users Must be required to re-enter their password after an active session has been terminated because of a system failure, session time-out or other similar events. • During log-on, the system Must inform the user of the time/date of last log-on and, where possible, if the user ID is already in use. • Use SSL protocol for browsing. • For administrative work (e.g user creation, role creation, password reset activity must be approved higher layer before activating) E-Mail Notifications require.
Password Management	<ul style="list-style-type: none"> • Password complexity Must be enforced for all user passwords and should be based on a combination of uppercase, lowercase and digits and if available special characters with minimum length of 8 characters. • For privileged accounts which are shipped with operating, systems, platforms, and devices, these Must be renamed. • Privileged Accounts Must have a minimum length of 12 characters. • Password age is 90 days and change notification will send after every 90 days. • Password history should be maintained (last 10 password can't be used or as mentioned in the parameter) • Multiple log in with same ID is not allowed • Users Must positively acknowledge receipt of User IDs and passwords. • Minimum password age should be configurable and < 90 days • Systems Must be configured not to indicate which portion of login sequence (User ID or password) was incorrect. • User IDs that have not been accessed for more than Ninety (90) days Must be disabled or locked out (Configurable).
Communication	E-Mail Notifications for password expiry/change.
Password Recovery	Recover password must sent by email in link and ask user for must change the password.

Hardware Requirement:

- Server -01
- VM License <As per Spe>
- OS License -01

4. System Deployment Requirements

Two major phases are expected for the delivery of the described requirements.

Phase 1: The Shopfloor Employees Live Dashboard

Phase 2: The Performance Appraisal Functions

As such, all features required to make the Live Dashboard functionable must be given priority and developed so that it can Go-Live at the earliest, according to the timeline agreed during briefing and discussions.

Once the Live Dashboard has successfully launched in Phase 1, in Phase 2, the rest of the features must be implemented so that the Performance Appraisal can take place.

The Business Reasoning for this Phase-wise priority is so that the Live Dashboard acts as motivation for the Shopfloor Employees to improve their performance before the Performance Appraisal season starts.

5. Data Migration Requirements

Currently all our data (employee information) is stored on our employee payroll system & employee data-tracking system. Given that the volume of the data is immense, the new system needs to be able to support massive data migration. Additionally, if the current payroll systems become obsolete, the new system must have the potential to further migrate the data to any new systems.

6. Appendix

Employee Performance Appraisal Sheet SMD 2021						
Employee Name:			Employee ID:		Designation:	
Line Manager's Name:			Department:		Date:	Shift:
i. KPI		Max Target	Achieved	Points	40% of KPI + 40% of Business Deliverables + 20% of Development Deliverables	
					0.00	
SCORE			0			
ii. BUSINESS DELIVERABLES		Points	Comments (Target vs Achieved)			
Operational Efficiency						
Quality						
Wastage						
Environment, Health and Safety						
High Performance Organization Mindset						
SCORE:		0	Average			
iii. DEVELOPMENT DELIVERABLES		Points	Comments (Target vs Achieved)			
SCORE		0	Average			
Summary of Strength & Development Areas						
Training Requirements						
Reviewee's Comment						
Line Manager's Comment						
Reviewee's Signature				Line Manager's Signature		

Fig. Currently used Excel-based Appraisal Form