

Hotel Coopergates Revenue Decline



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1 Pre-Define Phase

Hotel Coopergate: Sales Records

Revenue loss data of Hotel Coopergates, located at Tipiland, for past three years:

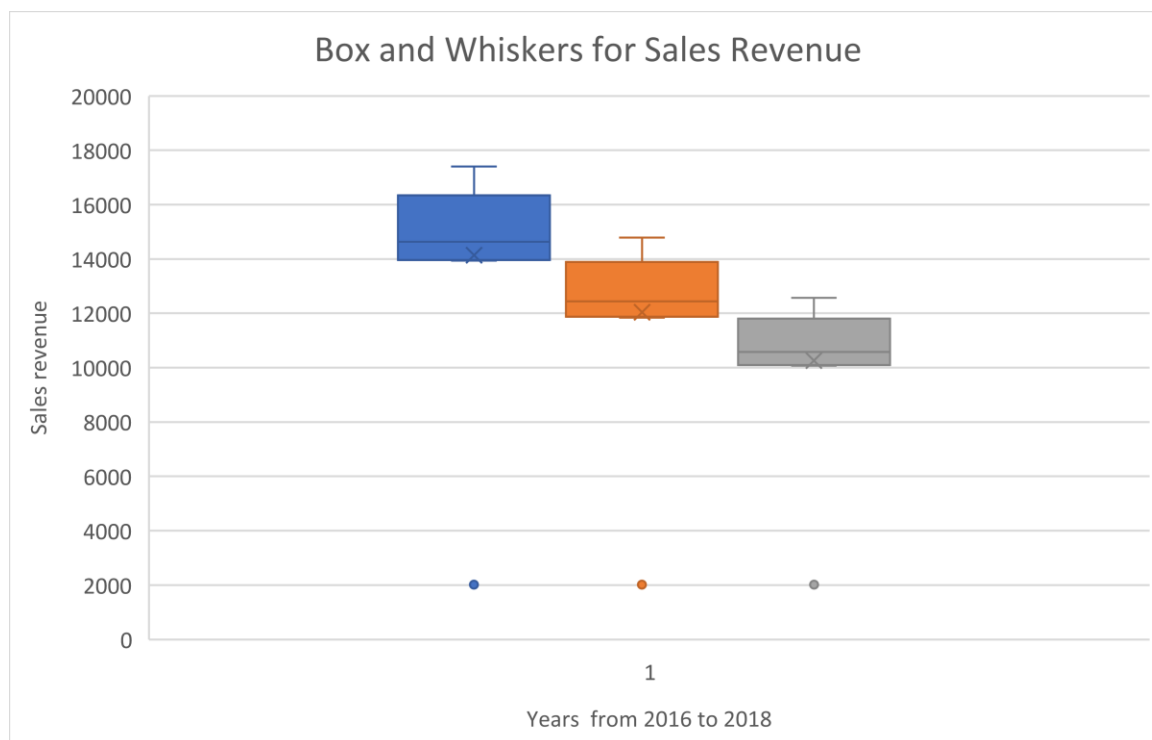
Sales Revenue in \$			
Months	2016	2017	2018
January	15764	13399	11389
February	17401	14790	12572
March	16926	14387	12229
April	15038	12782	10865
May	14099	11984	10186
June	13933	11843	10067
July	16923	14385	12227
August	13957	11863	10084
September	14638	12442	10576
October	14345	12193	10364
November	14803	12583	10696
December	13975	11879	10097
Total Revenue	181802	154530	131352
Average Revenue	15150.16	12877.5	10946

Analyze the data graphically and statistically and present your insights.

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1.1 Sales record analysis



Interpretation: Sales revenue reduced from 2016 to 2018. By analyzing the graph, I can say there are no outliers.

Decoding the Case Study



The reports show that the percent of repeat sales have decreased steadily over the past three years under scrutiny. CEO deposes Mr. Bond, a black belt personnel to revive the business.

How would Mr. Bond solve the situation analyzing the data through DMAIC?

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Occupancy Ratio



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Lost Account/Lost Room Nights Reports

			Lost Accounts		Rooms
2017	2017	2017	Lost Accounts		Rooms
			ABC Healthcare		62
			3M		5
			ALG Engineerings		7
			Alpha N		59
			ABJ Cements		32
			Amek Foster Limited		10
			Amenek Instruments		13
			Atl		12
			Avano Engineering		14
2018	2018	2018	ACX Bank		151
			Boni Auto		41
			BND Industries		56
			BBB Enterprise		715
			Baile Paints		36
			BHLL		7
			Bilfin		42
			CSX Bank		96
			Chl Fertilizer		20
			ChK Financial		30
2019	2019	2019	MS General Insurance		9
			Cidila Limited		61
			Delta Comp		12
			Dist Pay		41
			3M		24
			BC Housing		10
			Akumen Healthcare		12
			Alabama Cements		22
			Alpha Enterprises		17
			Aqualiff Systems		12
2020	2020	2020	Amex Bank		15
			BCG Auto		48
			RR Paints		13
			BoschRex		610
			Capital One		10
			Cilla Limited		109
			Cognizant		10
			Danie Entertainment		18
			Dolo Bank		40
			DNJ Housing Corporation		13
2021	2021	2021	DHEB Life Insurance		17
			Dr. Messi'S		6
			Dr. Messy's Laboratories		19
			DSMN Pharmaceutical		10
			DuPont		17
			Ericsson		292
			Exile Life		13
			Fruito Limited		15
			GE Elecix		25
			Glenmark		9
2022	2022	2022	Godfrey Phillips		10
			Refoils and Solvent		9
			Greaves Fabs		10
			Hanwha Chems		11
			IDJ Bank		88
			IBM		385
			ABB		30
			Abbott		19
			Agility Creations		15
			Alpha M:		49
2023	2023	2023	MH Cements		50
			B and N Auto		162
			BBB Enterprises		1516
			Being Paints		43
			Bhareign Paints		16
			Bilfinge Technologies		49
			Bob Pure		37
			Cairin Energy		69
			Capital One		18
			CB Ventilators		18
2024	2024	2024	Celanose Chems		30
			General Insurance BITs		12
			Cipala Limited		21
			Cognizant		31
			CLI Pumps		12
			Paul and Sons		66
			DKLL		71
			Direct Tax Reons		40
			Dr. Messy's Laboratories		58
			LuPont		27
2025	2025	2025	Futide Life		13

No Booking: Reasons

SSBB collects the Voice of Customers (VOC) from lost accounts by connecting with the respective bookers through interview methods and feedbacks.

Following were the reasons for *no bookings* from the lost accounts data:

- Longer wait time for check-ins
- Overbooking issues, leading to guests moving to other hotels
- Service issues
- Room maintenance issues
- Unfriendly staff
- Wrong invoice
- Room rates
- Others

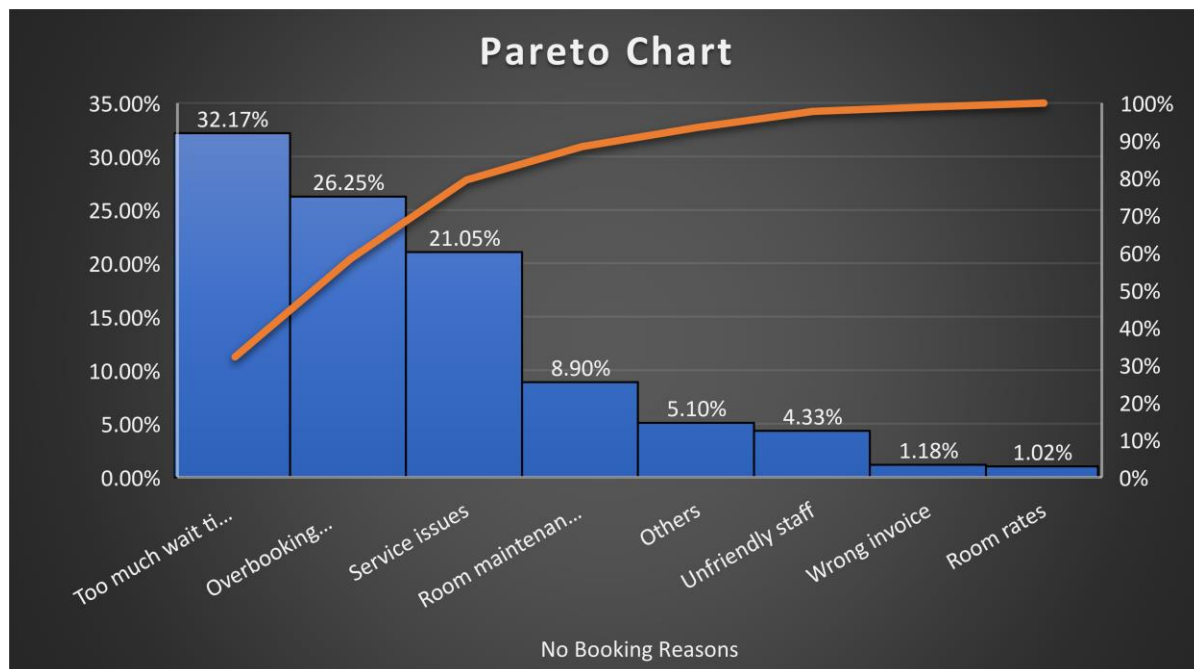
No-Booking Reasons: Percentages

Lost account VOC	
Too much wait time while check-in	32.17%
Overbooking leading to shifting hotels	26.25%
Service issues	21.05%
Room maintenance issues	8.90%
Unfriendly staff	4.33%
Wrong invoice	1.18%
Room rates	1.02%
Others	5.10%

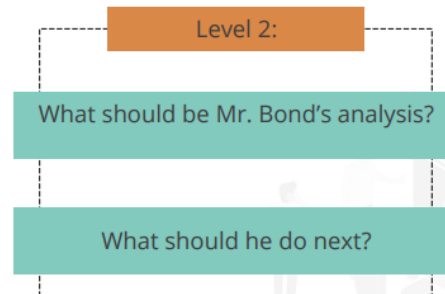
Use an appropriate tool to analyze the data.

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1.2 Pareto Chart for Lost account VOC



What Should be the Next Step?



2 Define Phase

Project Charter

Create a project charter for the following elements.

Business Case

- Why should we do this task?
- What will be the impact of not improving the process?

Problem Statement

- What *pain* are we experiencing?
- What are the opportunities?
- How long has the problem existed?

Objectives

- What are our improvement objectives and targets?
- How much do we want to achieve?

Project Scope

- What are the boundaries of this process?
- What processes are we addressing?
- What is within and beyond the scope?

Key Milestones

- What are the key milestones to achieve?

Team Selection

- Who are the team members?
- What responsibilities will they have?

2.1 Project Charter

RKM

Project Charter Document

Project Name: Rexion Movie Theatre

PROJECT CHARTER PURPOSE:

The project needs to be done to increase repeat sales. It is been observed that repeat sales have decreased steadily over the past three years.

Problem Statement:

- The hotel is steadily losing revenue by 15% every year due to a decrease in repeat sales by 50% yearly even after spending 7% of the total budget revenue earned on BTL activities, online promotions, PR Parties, and travel planner entertainment.
- This has reduced the **Gross Operating Process** from 32% in 2014 to -8% in 2017, resulting in a threat to the services and quality of the hotel, which may lead to loss of **Star Category**.

Objectives (Goal Statement):

Improving upon the hotel services by 10 folds in the next 12 months by reducing:

- The average check-in time is from 12 minutes to 4 minutes.
- The number of guests moving due to overbooking from an average of 11 per day to 3 per day which will improve the Gross Operating Process by 8%-10%.
- The service issues by 30%.

Business Case:

- Improvement in hotel services will result in recovery from losses, which will break even the Gross Operating Process and bring stability in cash flow by 8% to 10% over the next 12 months, revive the lost market share, increase profitability by 10% per annum from the subsequent year and regain brand value.
- If the loss in revenue is not arrested at this stage, further revenue loss will result in staff layover and decrease the hotel standards, which may lead to hotel shutdown or takeover by comp set.

Project Scoping:

- This project will be plugging out all the major glitches in guest services (Check-in duration, overbooking issues, and service issues) to make the stay a **delight**.
- The project will focus on the retention of existing accounts and the reviving of lost accounts.

Prepared by Rathish Kumar Manjunath

2.2 Cost Benefit Analysis

Cost Benefit Analysis

NPV and IRR				
Year	Cost	Benefits	Net Benefits	Description
			9.5%	Annual Discount Rates which management wants
0	-\$4500	\$0	-\$4500	Initial Project Investment
1	-\$1500	\$2000	\$500	Returns
2	-\$500	\$4000	\$3500	Returns
3	\$0	\$7000	\$7000	
Totals	\$6500	\$13000	\$5500	

Calculate the NPV and IRR from the given data.
Analyze if it is beneficial for the organization.

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NPV = 3842.22

IRR = 42%

2.3 RACI Model:

Team Members	Define	Measure	Analyse	Improve	Control
Black Belt	R/A	A	R/A	A	A
Green Belt	R	R		R	
Guest Relationship Executive	C	C	C	C	R
Process Manager	C	C	C	A	R
Financial Representative			I		

VOC Analysis

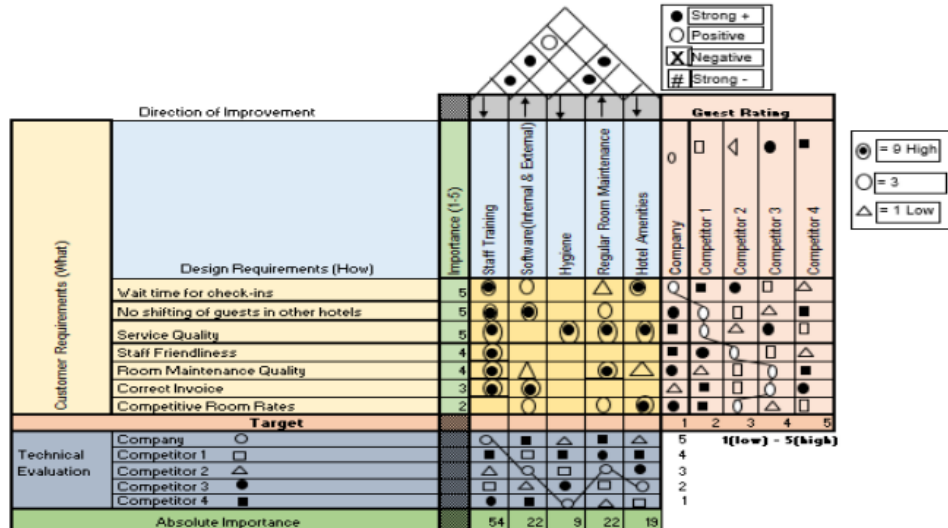
Guest rating						
Attributes	Importance	Cooperates	Comp 1	Comp 2	Comp 3	Comp 4
Wait time for check-ins	5	1	4	1	3	2
No shifting of guests in other hotels	5	2	3	4	1	1
Service quality	5	2	5	3	2	5
Staff friendliness	4	3	4	5	2	1
Room maintenance quality	4	4	3	2	1	5
Correct invoice	3	4	3	1	5	2
Competitive room rates	2	3	5	4	1	2

?

So, what should Mr. Bond do next?

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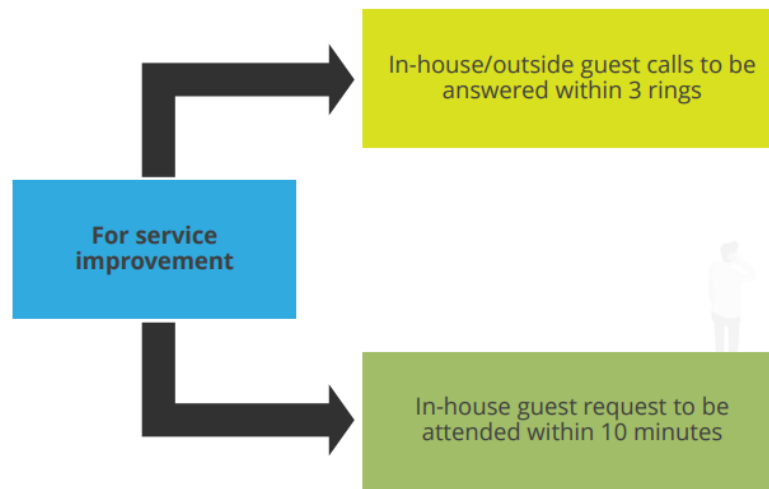
Quality Function Deployed: House of Quality



What are the parameters you can derive from the House of Quality?

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Industry Standards for Service Improvement



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Competitive Benchmarking

Occupancy Rate = (No. of rooms sold/No. of rooms available) * 100

Occupancy rates year-wise	Hotel Coopergates	Hotel 1	Hotel 2	Industry average
2014	62.20%	74.60%	75.30%	67.70%
2015	57.70%	75.10%	75.80%	69.64%
2016	51.30%	75.80%	75.60%	68.26%
2017	43.50%	76.30%	75.90%	68.67%
Average Occupancy	53.68%	75.45%	75.65%	68.57%

- Competitive benchmark(Best in class) : Occupancy rate 75.65%
- Competitive benchmark(Industry average) : 68.57%



Target : To attain 68.57% occupancy for Hotel Coopergates in 18 months

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Competitive Benchmarking (Contd.)

ADR (In \$) = (Net room revenue/No. of rooms sold)

ADR in \$ for last four quarters	Hotel Coopergates	Hotel A	Hotel B	Hotel C	Industry average
2017 Ist Quarter	\$47.15	\$365.97	\$339.77	\$322.43	\$153.91
2017 IInd Quarter	\$43.27	\$366.51	\$338.02	\$322.76	\$153.68
2017 IIInd Quarter	\$41.76	\$365.91	\$340	\$321.98	\$152.65
2017 IVth Quarter	\$39.43	\$367.01	\$340.05	\$322.93	\$154.00
2017 Average	\$42.90	\$366.35	\$339.46	\$322.53	\$153.56

- Competitive benchmark(Best in class): ADR(Yearly): \$366.35
- Industry average: ADR(Yearly): \$153.56



Target: To attain yearly ADR of \$ 153.56 in next 18 months

SIPOC

SIPOC deals with every aspect of the check-in and check-out process at a hotel. The hotel's front desk helps the guests to input the required information.

Upon the guests' arrival at the hotel reception, the hotel's front desk must greet the customer, check for which room they have booked, ask for the guest's details, fill the registration card, fill the arrival/departure manual register, take a photocopy of the guests' ID proofs, fill in the C form for foreign guests, allocate the room to the guest, take the guests' signatures in the register, hand over the room keys to the guests, and wish the customer a pleasant stay.

Also, assign a bell boy to escort the guests to their respective rooms.

Upon their departure, it is important to check the allocated rooms, guests' signature, and the guests' information, feedback, and complaints to improve customer experience.

Using this data, create a SIPOC diagram and a process map.

2.4 SIPOC

	A	B	C	D	E	F	G
1	Suppliers	Inputs	Process		Outputs	Customers	
2	(Providers of the required resources)	(Resources required by the process)	(Top level description of the activity)		(Deliverables from the process)	(Anyone who receives a deliverable from the process)	
3			Requirements				
4	Hotel front desk Bell Boy	Booking confirmation	Start: Guests' arrival at the hotel reception		Allocated room	Guests	
5		Room keys	High level process description:		Guests' signature		
6		C form	Greet the customer		Guests' information		
7		Arrival/Departure manual register	Check for the room booking		Guests' feedbacks		
8		Guests' details	Ask for guest details		Guests' complaints		
9		Guests' ID proofs	Fill the registration card				
10		Registration cards	Fill the Arrival/Departure				
11			Photocopy the guests' ID				
12			Fill in C FORM for foreign guests				
13			Allocate room to guest				
14			Take guests' signatures in the register				
15			Handover the room keys to the guest				
16			Greet the customers for pleasant stay				
17			End: Assign bell boy to escort the guest to the respective room and reach their luggage				

3 Measure Phase

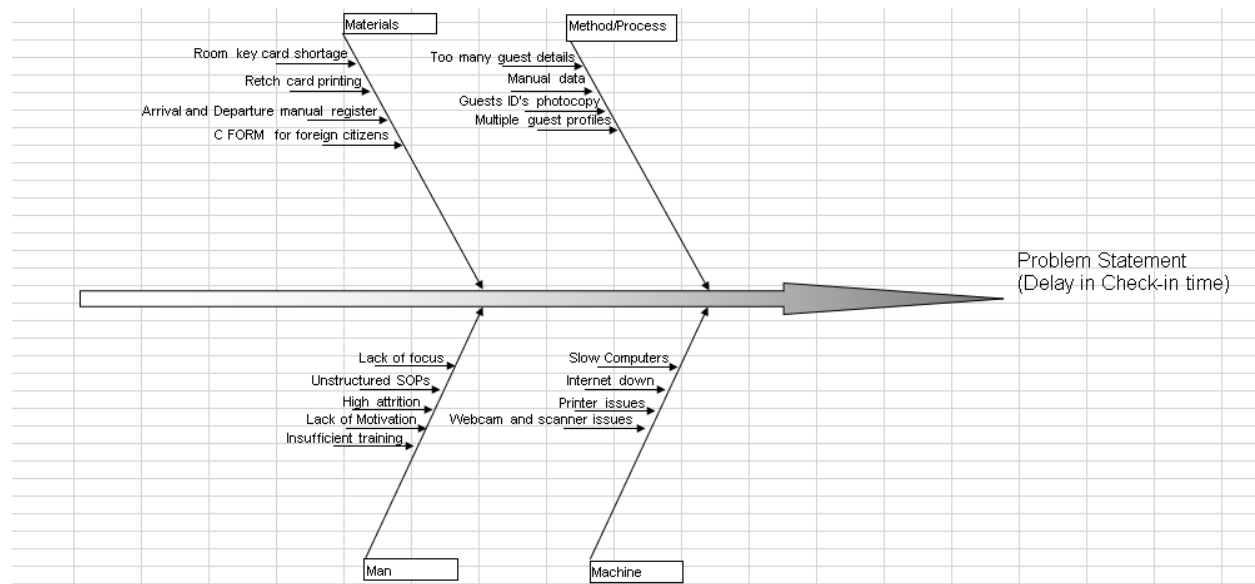
Ishikawa Model

Use fishbone diagram to represent the root causes

Potential causes
Room key cards shortage
Reg cards filling/printing
Arrival and departure manual register
C form for foreign citizens
Too many required guest details
Multiple guest profiles
Slow computers
Internet down
Printer issues
Webcam and scanner issues
Lack of focus
Unstructured sops
Undertrained staff/insufficient training
High attrition
Lack of motivation



3.1 Fishbone Diagram



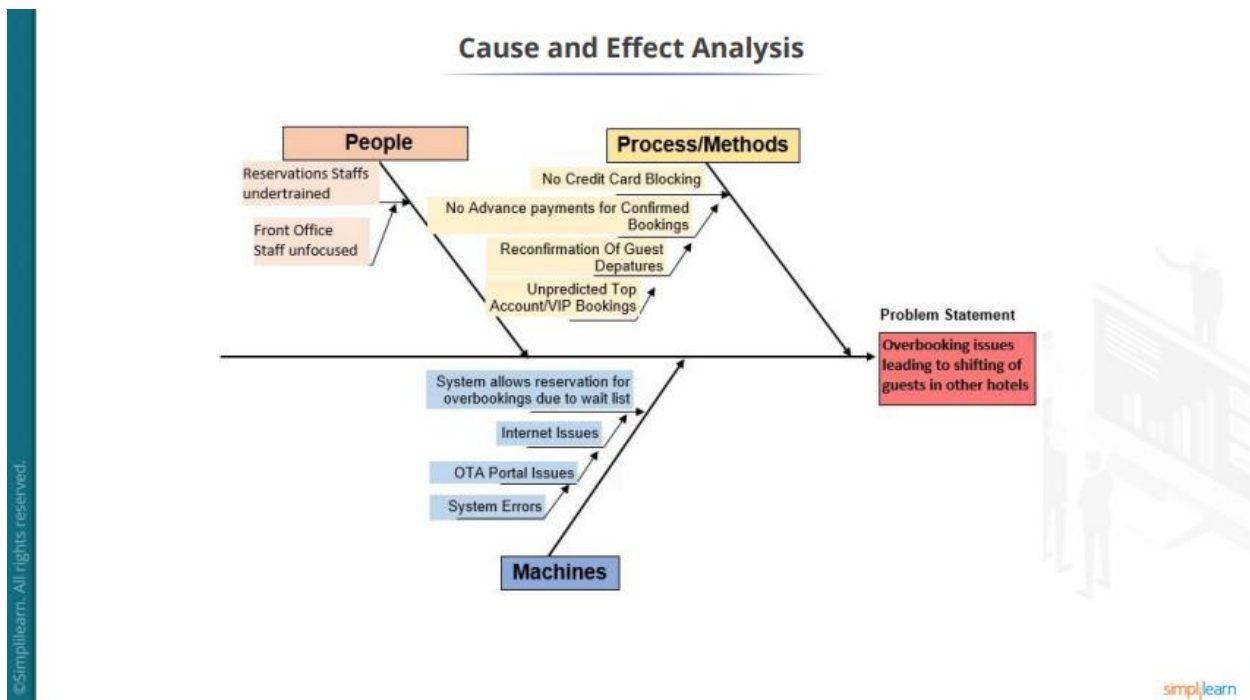
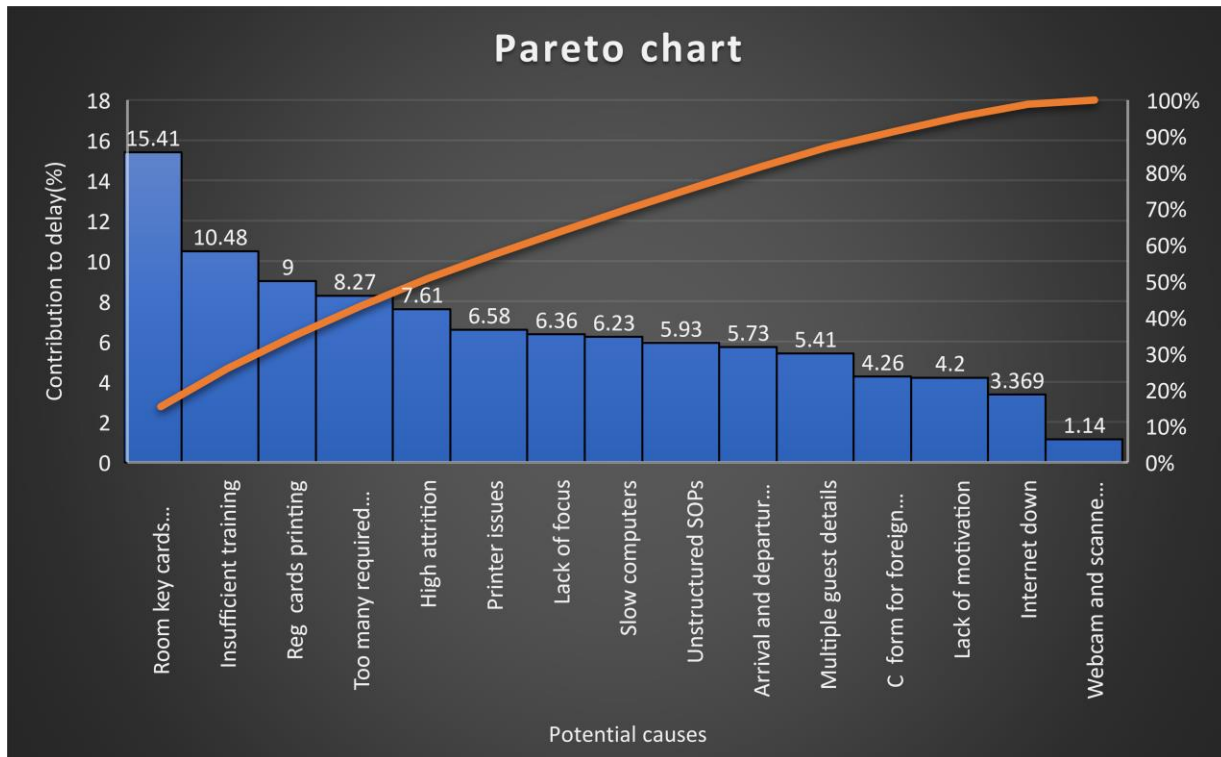
Causes for Delay in Check-in Time

Potential causes	Contribution to delay (in %)
Room key cards shortage	15.41%
Reg cards filling/printing	9%
Arrival and departure manual register	5.73%
C form for foreign citizens	4.26%
Too many required guest details	8.27%
Multiple guest profiles	5.41%
Slow computers	6.23%
Internet down	3.39%
Printer issues	6.58%
Webcam and scanner issues	1.14%
Lack of focus	6.36%
Unstructured sops	5.93%
Undertrained staff/insufficient training	10.48%
High attrition	7.61%
Lack of motivation	4.20%



So, what should be the plan of action for Mr. Bond?

3.2 Pareto chart – causes for delay in check-in time



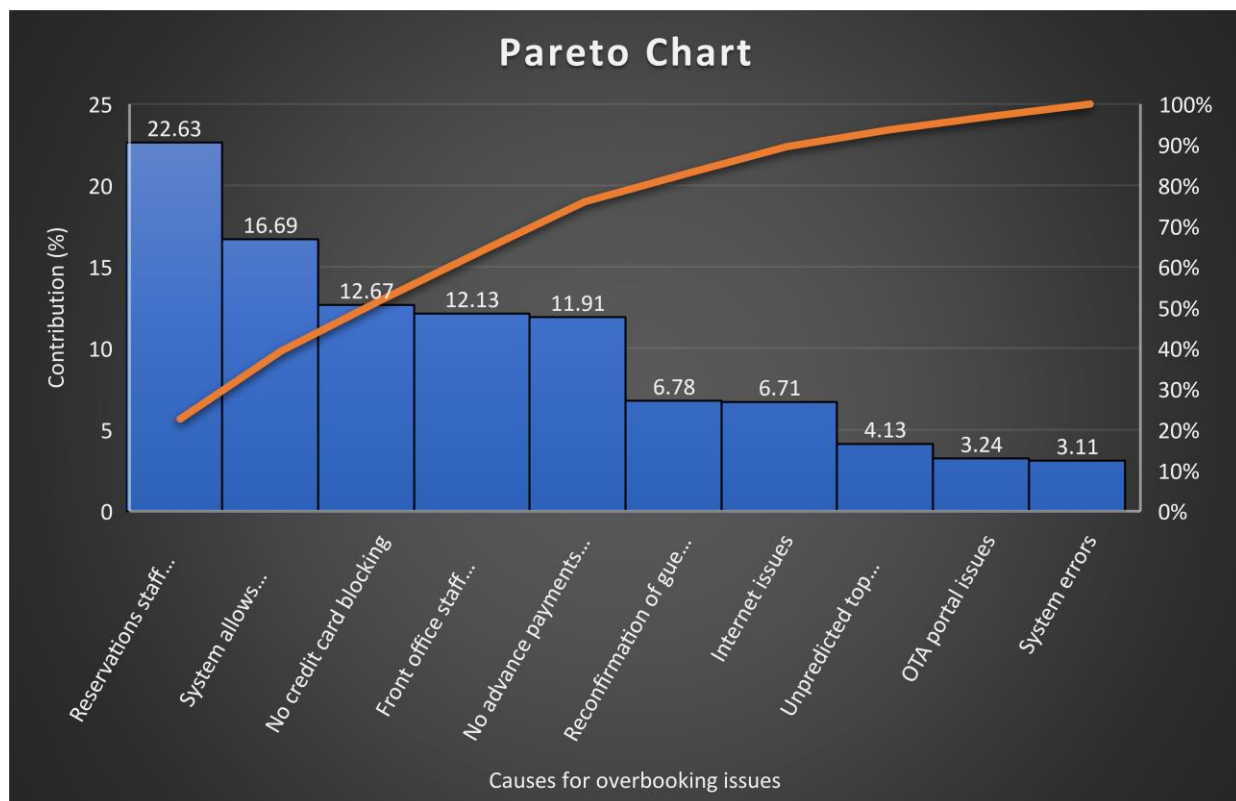
Causes of Overbookings

Causes for overbooking issues leading to guests moving to other hotels:

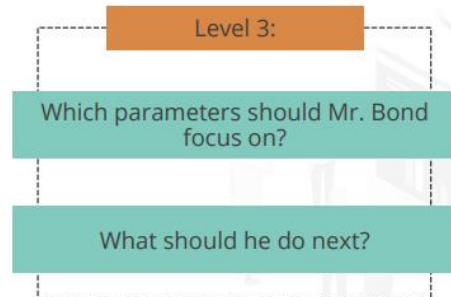
Causes for Overbooking Issues	Contribution in %
Reservations staffs undertrained	22.63%
Front office staff unfocused	12.13%
No credit card blocking	12.67%
No advance payments for confirmed bookings	11.91%
Reconfirmation of guest departures	6.78%
Unpredicted top account/VIP bookings	4.13%
System allows reservation for overbookings due to wait list	16.69%
Internet issues	6.71%
OTA portal issues	3.24%
System errors	3.11%



3.3 Perto chart – Causes of overbookings



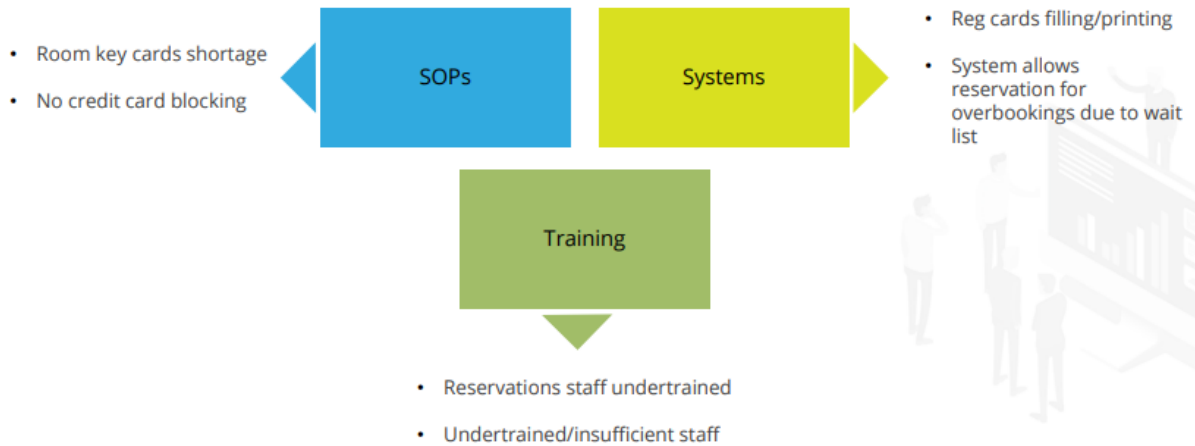
What Should be the Next Step?



Mr. Bond has to focus on the following:

- Room key card shortage
- Insufficient staff
- Reg cards printing
- Reservations staff under-trained
- The system allows reservations for overbookings due to waitlist
- No credit card blocking

Affinity Diagram



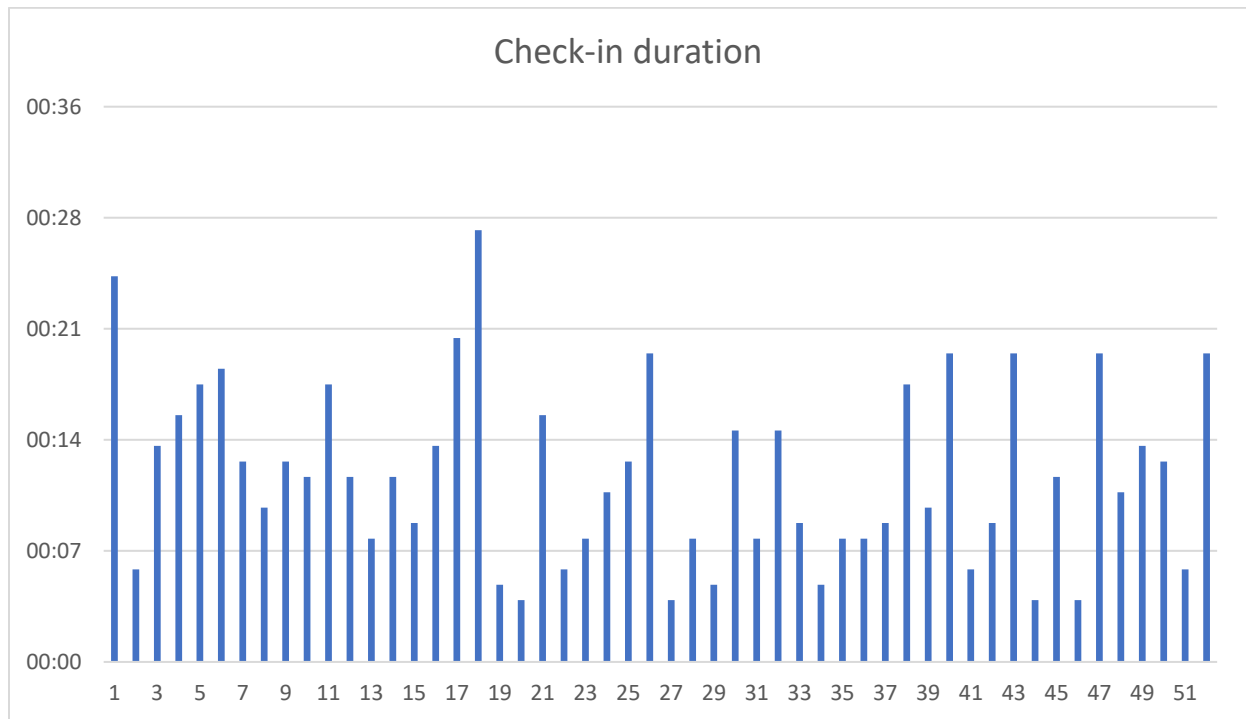
Guest Check-in Duration: 52 Samples

Title	First name	Last name	Arrival time	Check-in time	Check-in duration
Mr.	Roger	Gates	11:03	11:28	0:25
Ms.	Jenefer	Lwels	10:42	10:48	0:06
Ms.	Gabrielle	Edens	13:03	13:17	0:14
Mr.	Diego	Jonas	12:51	13:07	0:16
Mr.	Adam	Smith	9:43	10:01	0:18
Ms.	Jully	Miller	10:50	11:09	0:19
Mr.	Roger	Brown	8:52	9:05	0:13
Mr.	David	Wilson	6:31	6:41	0:10
Mr.	Lewis	Davis	8:36	8:49	0:13
Mr.	Rajan	Sahay	18:17	18:29	0:12
Ms.	Rima	Jones	18:17	18:35	0:18
Mr.	Sam	Paul	14:19	14:31	0:12
Ms.	Rose	Williams	12:03	12:11	0:08
Mr.	Samuel	Dias	11:17	11:29	0:12
Mr.	Jack	Woods	16:09	16:18	0:09
Ms.	Wendy	Taylor	14:21	14:35	0:14
Ms.	Cathy	Moore	14:21	14:42	0:21
Ms.	Edna	Hill	14:21	14:49	0:28
Mr.	Jay	Bennett	19:26	19:31	0:05
Mr.	Simon	Cooper	10:05	10:09	0:04
Mr.	Patty	Cox	15:51	16:07	0:16
Ms.	Stefanie	Patterson	8:03	8:09	0:06
Mr.	Devin	Bailey	22:31	22:39	0:08
Mr.	Marco	Jackson	20:18	20:29	0:11
Mr.	Antonio	Coleman	6:47	7:00	0:13
Ms.	Tamsin	Long	12:19	12:39	0:20

Title	First name	Last name	Arrival time	Check-in time	Check-in duration
Mr.	Collin	Powell	10:06	10:10	0:04
Mr.	Joel	Knight	15:19	15:27	0:08
Mr.	Andy	Jones	10:14	10:19	0:05
Ms.	Dia	Ray	14:11	14:26	0:15
Mr.	Rajan	Narayan	16:51	16:59	0:08
Ms.	Florance	Flower	7:08	7:23	0:15
Mr.	Michael	James	13:19	13:28	0:09
Mr.	Robert	Bruce	11:10	11:15	0:05
Ms.	Anjee	Pears	19:13	19:21	0:08
Mr.	Roger	Rege	14:59	15:07	0:08
Mr.	Sunil	Chhaddha	16:18	16:27	0:09
Mr.	Farukh	Shaikh	15:41	15:59	0:18
Ms.	Fiona	Cook	12:09	12:19	0:10
Mr.	John	Rendel	5:09	5:29	0:20
Mr.	Kekke	Pees	13:47	13:53	0:06
Mr.	Peter	Anderson	15:19	15:28	0:09
Mr.	Ojus	Muskatwala	12:16	12:36	0:20
Ms.	Tilly	Brown	9:17	9:21	0:04
Ms.	Jane	Lopez	8:43	8:55	0:12
Mr.	Raj	Malhotra	19:14	19:18	0:04
Mr.	Pete	Rendel	14:19	14:39	0:20
Mr.	Ronan	Green	15:43	15:54	0:11
Mr.	John	Young	19:13	19:27	0:14
Ms.	Janet	Ward	7:04	7:17	0:13
Ms.	Sarah	Nelson	14:12	14:18	0:06
Mr.	Richard	Perez	19:19	19:39	0:20

Analyze the data and calculate measures of central tendency and measures of dispersion.

3.4 Analysis of Guest check-in duration



Measure of Central Tendency:

Mean = 12 minutes

Median = 12 minutes

Mode = 8 minutes

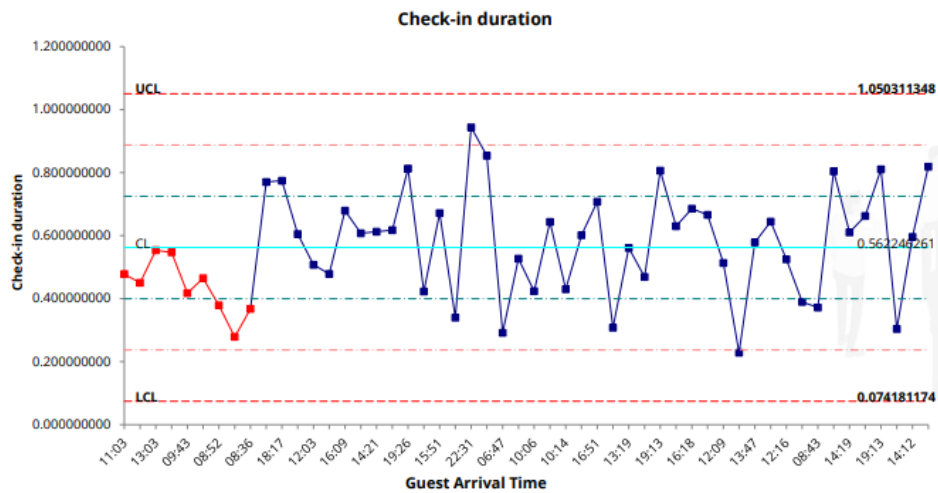
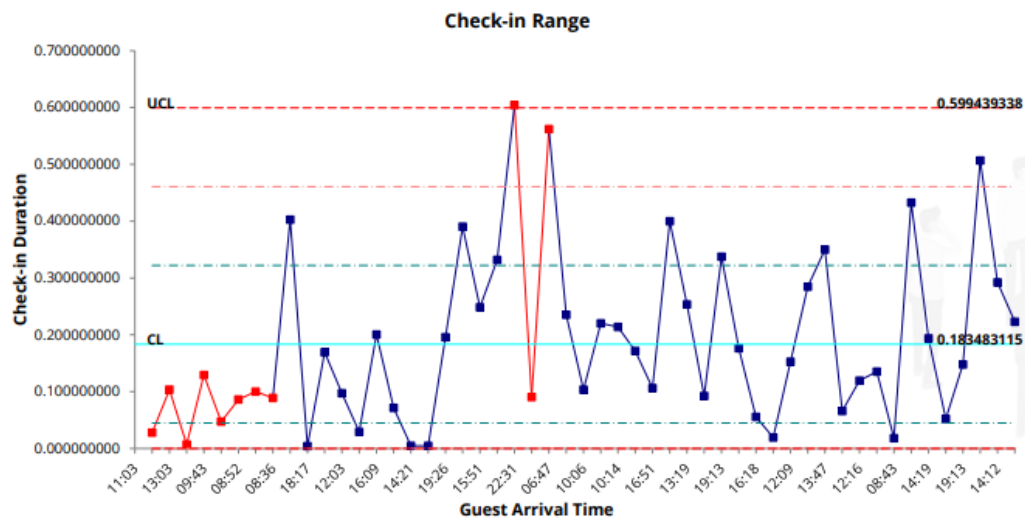
Target Mean = 4 minutes

Measures of Dispersion:


Range = 21 minutes

Standard Deviation = 5 minutes

3.5 Process Stability Check

X-Chart**R-Chart**

What Should be the Next Step?



What should Mr. Bond conclude about process stability?

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3.6 Process stability

Current Observation	<ul style="list-style-type: none">❖ Actual mean check-in duration is 8 minutes more than the target mean check-in duration.❖ Large variation in the process is observed❖ XMR chart also shows out-of-control situations in check-in duration data
Plan of Actions	<ul style="list-style-type: none">✓ The mean check-in duration has to be reduced to 6 minutes.✓ Variation in the process needs to be reduced by 50%.✓ Process capabilities to be established after stabilizing the check-in process

4 Analyse Phase

What Should be the Next Step?



Level 4:

What should Mr. Bond do to stabilize the process?

How should he move further?

KPOV Vs KPIV

KPOVs	KPIVs
Check-in duration within 6 minutes	<ul style="list-style-type: none"> ✓ Modify check-in/check-out SOPs ✓ Introducing automations ✓ Install new computer peripherals: printers; webcams ✓ Training the front office staff
Shifting of guests to other hotels due to overbooking	<ul style="list-style-type: none"> ✓ Modify sales SOPs ✓ Training sales staff ✓ Daily online sales report check from backend ✓ System automation to stop reservations for the day once 10% of wait list reservations is attained
Service quality improvements	<ul style="list-style-type: none"> ✓ Modify service SOPs ✓ Reinforce c-sat scores ✓ Regular complaint analysis

Guest Registration Card Modifications

Current guest registration card:

First Name:
Last Name:
Cell Number:
Email ID:
Date Of Birth:
Anniversary Date:
Country:
Address:
Arrival Date:
Arrival Time:
Departure Date:
Expected Departure Time:
Purpose of Visit:
Walk In/Pre Booked Guest:
Room Rate:
Room Number:
Room Type:
Method of Payment:
Billing Instructions:

New guest registration card:

First Name:
Last Name:
Arrival Date:
Arrival Time:
Departure Date:
Expected Departure Time:
Room Rate:
Room Number:
Room Type:
Method of Payment:
Billing Instructions:
Guest Signature:
Date:
Front Desk Verifier's Signature:

Automate guest information from booking page; prepare reg card pre arrival except: arrival date, arrival time, departure date and expected departure time etc.

Five-Step Registration Process



SOP - Group Check-in

Preparation before group arrival	
➤ Always designate a group coordinator from the front desk prior to arrival.	➤ Insert key cards into key card jacket and place on the tray along with rooming list.
➤ Liaise constantly with the sales group coordinator for information.	➤ Choose an appropriate group check-in area according to the following: <ul style="list-style-type: none"> ▪ Size of the Group ▪ Block/wing the group is staying in ▪ Transport to the hotel ▪ Time of check-in
➤ Check that arrival registration cards have been prepared for the group along with the rooming list for signature.	➤ Guest registration card along with keys should be kept in alphabetical order.
➤ Check if all the relevant correspondence has been read and briefed, during the staff briefing, on the day of group check-in.	➤ Sufficient stationary/pens must be kept ready for guests to sign their registration cards.
➤ Check group billing instructions and cross check the billing instructions entered on the property management software.	➤ Welcome drinks and cold towels should be prepared so they may be served on arrival. And accurate number of drinks to be pre-ordered so that the room service supervisor is aware of this requirement.
➤ Once priority group rooms have been allocated, cut rooms keys for arrival.	➤ The bell desk/concierge must be kept informed of the group arrival time and the following needs should be coordinated: <ul style="list-style-type: none"> ▪ Luggage tags are ready ▪ Luggage delivery plan is organized
➤ If group is arriving at one time then all rooms must be allocated and all keys cut. The number of keys per room must match with the occupancy of the room.	➤ Duty roster has to be prepared taking into consideration the group's size and arrival time.

SOP - Bell Desk

Escorting guests to their rooms
<ul style="list-style-type: none"> ➤ Present yourself to the guest with a genuine smile ➤ Always offer guest to carry his/her bags ➤ Always try to walk to the right of the guest while directing them to their room ➤ Walk a short step ahead of the guest maintaining a distance of 2 feet from him/her ➤ Smile warmly and maintain eye contact when conversing with the guest ➤ On the way, briefly explain the hotel features and facilities which the guest needs to know (e.g. breakfast room, restaurant timings, pool area, spa access, complimentary hi-tea, city drop, boat ride etc.) ➤ Walk professionally without making any noise ➤ Assist the guest in calling the lift by pressing the button to get the lift for the guest ➤ When the lift door opens, show an open palm gesture. ➤ Explain how to use the room key to activate the elevator ➤ Once the lift arrives at the floor, let the guest out first and then direct the guest towards their room as above ➤ upon reaching the room, open the door for the guest ➤ Demonstrate the usage of room key ➤ Open the door and let the guest in the room ➤ Ask guest permission to enter the room and ask if they wish to have an explanation of the room ➤ If the answer is yes, show the room and explain e.g. TV use, mini bar, air-conditioning, lightning etc. ➤ Offer further assistance, if required or asked by the guest

SOP – Check-out

Tabs to be kept at the reception counter for guest feedback

- Pre-prepared billing as per billing instructions on the reservation
- Appropriate charges to be added, and a copy of the info-invoice to be provided to the guest for verification
- Method of payment has to be verified and processed discretely
- If there is any dispute on mini bar charges, then as per hotel policy appropriate steps should be carried out. **Example:** Waiving off the disputed charges etc.
- Ensure keys remain operative to access special configured printer for final invoice
- Two copies of invoices has to be generated and the guest signature has to be taken on both copies
- Handover one copy to guest neatly folded in an envelope
- Check-out process has to be completed in less than 4 minutes
- Offer further assistance with luggage, directions, or transportation
- Ensure guest fills up the hotel feedback form through tab during the check-out process
- Ensure to speak last, offer thanks and an invitation to return with a smile

Guest Feedback

Guest should fill the feedback survey while checking out at the hotel reception.

Tabs to be kept at the reception counter for guest feedback	
➤ Staff was well groomed, uniformed, name tag was present	Yes\No
➤ Staff did not eat, drink, smoke or chew gum	Yes\No
➤ Staff maintained focus while attending you, was not distracted	Yes\No
➤ Your waiting time while checking in has been for no longer than 6 minutes	Yes\No
➤ Staff spoke first and greeted you with a smile while welcoming you	Yes\No
➤ Billing was pre-prepared as per your billing instructions on the reservation	Yes\No
➤ Check-out process was completed in less than 4 minutes	Yes\No
➤ Staff offered further assistance with luggage, directions, or transportation	Yes\No

Ratings: 1: Not At All Likely; 5: Extremely Likely	1	2	3	4	5
➤ How would you like to rate your stay at CooperGates?	1	2	3	4	5
➤ How likely are you to visit us again?	1	2	3	4	5
➤ How likely are you to rate our services?	1	2	3	4	5
➤ How likely are you to recommend CooperGates to your friends and families?	1	2	3	4	5

Guest Feedback (Contd.)

Tabs to be kept at the reception counter for guest feedback	
➤ Did you have any complaints during your stay at Coopergates? If Yes :	Yes\No
▪ Was your complaint attended within 10 minutes?	Yes\No
▪ Are you satisfied with the resolution provided?	Yes\No
▪ Your complaint was regarding:	
Invoice	<input type="radio"/>
Services	<input type="radio"/>
Room	<input type="radio"/>
Hotel Amenities	<input type="radio"/>
Check-in/Check-out	<input type="radio"/>
Others	<input type="radio"/>

Sales Parameters

Sales	Reservation status
<ul style="list-style-type: none"> ➤ Full payment ➤ Card blocking <ul style="list-style-type: none"> ▪ Room on-hold without payment ▪ Room to be released if payment/card details not received within 24 hours (guests to be informed by reservation desk) 	<ul style="list-style-type: none"> ➤ Confirmed reservation ➤ Confirmed reservation ➤ Wait list ➤ Cancel reservation
For repeat guests	For full advance payments
<ul style="list-style-type: none"> ➤ Loyalty programs for frequent visitors: <ul style="list-style-type: none"> ▪ Platinum members ▪ Gold members ▪ Silver members 	<ul style="list-style-type: none"> One complementary buffet lunch/dinner

5 Improve Phase

Pilot Run

Execute pilot run for 3 weeks to test

- Percentage of SOP adherence
- Improvement over previous process
- Improvement w.r.t. competitive benchmarks set
- Impact on c-sat scores



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Pilot Run

Pre-pilot	Title	First Name	Last Name	Check-in duration (In minutes)
	Mr.	Roger	Gates	25
	Ms.	Jenefer	Lweis	6
	Ms.	Gabrielle	Edens	14
	Mr.	Diego	Jonas	16
	Mr.	Adam	Smith	18
	Ms.	Jully	Miller	19
	Mr.	Roger	Brown	13
	Mr.	David	Wilson	10
	Mr.	Lewis	White	13
	Mr.	Rajan	Sahay	12
	Ms.	Rima	Martin	18
	Mr.	Sam	Garcia	12
	Ms.	Rose	Williams	8
	Mr.	Samuel	Dias	12
	Mr.	Jack	Woods	9
	Ms.	Wendy	Taylor	14
	Ms.	Cathy	Harris	21
	Ms.	Edna	Hill	28
	Mr.	Jay	Martinez	5
Pilot	Mr.	Simon	Cooper	4
	Mr.	Patty	Cox	16
	Ms.	Stefanie	Patterson	6
	Mr.	Devin	Bailey	8
	Mr.	Marco	Jackson	11
	Mr.	Antonio	Coleman	13
	Ms.	Tamsin	Long	20
	Mr.	Collin	Powell	4
	Mr.	Joel	Knight	8
	Mr.	Andy	Martin	5
	Ms.	Janet	Ward	13
	Mr.	Andrew	Smith	10
	Ms.	Sharon	Johnson	12
	Ms.	Flavy	Williams	8
	Mr.	Alexander	Martin	4
	Mr.	Nicholas	Smith	6
	Ms.	Lara	White	5
	Mr.	Tyler	Brown	8
	Mr.	John	Wilson	9
	Mr.	Noah	White	8
	Mr.	Brandon	Pandey	6
	Ms.	Ria	Martin	13
	Mr.	Nathan	Garcia	5
	Ms.	Gail	Williams	9
	Mr.	Justin	Dias	3
	Mr.	Gabriel	Woods	7
	Ms.	Jenefer	Taylor	8
	Ms.	Ada	Harris	14
	Ms.	Alecia	Hill	6
	Mr.	Caleb	Martinez	4
	Mr.	Thomas	Cooper	3
	Mr.	Cameron	Cox	7
	Ms.	Bambi	Patterson	8
	Mr.	Jackson	Bailey	3
	Mr.	Angel	Jackson	5
	Mr.	Isaiah	Coleman	5
	Ms.	Breana	Long	4
	Mr.	Mason	Powell	7
	Mr.	Luke	Knight	9
	Mr.	Jason	Martin	10
	Ms.	Carl	Ray	8

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5.1 Pilot test – T-test

Analysis of the pre-pilot data with the pilot for check-in duration	
<ul style="list-style-type: none"> Null hypothesis: Pre-pilot mean is similar to the pilot mean Alternate hypothesis: Pre-pilot mean is dis-similar to pilot mean 	

t-Test: Paired Two Sample for Means			
	<i>Check-in duration (In minutes)</i>	<i>Check-in duration (In minutes)</i>	
Mean	12.7	7.133333333	
Variance	37.25172414	8.257471264	
Observations	30	30	
Pearson Correlation	0.122291328		
Hypothesized Mean Differen	0		
df	29		
t Stat	4.749022992		
P(T<=t) one-tail	2.54695E-05		
t Critical one-tail	1.699127027		
P(T<=t) two-tail	5.0939E-05		
t Critical two-tail	2.045229642		

Inference: Null hypothesis I rejected since p-value < 0.05

5.2 Pilot test – F-test

Analysis of the pre-pilot data with the pilot for check-in duration	
<ul style="list-style-type: none">Null hypothesis: Pre-pilot c-sat mean is similar to the pilot c-sat meanAlternate hypothesis: Pre-pilot c-sat mean is dis-similar to pilot c-sat mean	

Performed F- test Two-sample for variances		
	Variable 1	Variable 2
Mean	54.975	90.55
Variance	1008.23	50.51026
Observations	40	40
df	39	39
F	19.9609	
P(F<=f) one tail	2.53E-16	
F critical one-tail	1.704465	

Inference: Null Hypothesis is rejected since p-value < 0.05

5.3 Chi-Square test

Pilot Run

Title	First name	Last name	Check-in duration (in minutes)	Target mean for check-in duration (in minutes)
Mr.	Andrew	Smith	10	6
Ms.	Sharon	Johnson	12	6
Ms.	Flavy	Williams	8	6
Mr.	Alexander	Martin	4	6
Mr.	Nicholas	Smith	6	6
Ms.	Lara	White	5	6
Mr.	Tyler	Brown	8	6
Mr.	John	Wilson	9	6
Mr.	Noah	White	8	6
Mr.	Brandon	Pandey	6	6
Ms.	Ria	Martin	13	6
Mr.	Nathan	Garcia	5	6
Ms.	Gail	Williams	9	6
Mr.	Justin	Dias	3	6
Mr.	Gabriel	Woods	7	6
Ms.	Jenefer	Taylor	8	6
Ms.	Ada	Harris	14	6
Ms.	Alecia	Hill	6	6
Mr.	Caleb	Martinez	4	6
Mr.	Thomas	Cooper	3	6
Mr.	Cameron	Cox	7	6
Ms.	Bambi	Patterson	8	6
Mr.	Jackson	Bailey	3	6
Mr.	Angel	Jackson	5	6
Mr.	Isaiah	Coleman	5	6
Ms.	Breana	Long	4	6
Mr.	Mason	Powell	7	6
Mr.	Luke	Knight	9	6
Mr.	Jason	Martin	10	6
Ms.	Carl	Ray	8	6

Analyze the pilot data and Infer how the pilot run improved the hotel revenue.

Analysis of pilot data

- The pilot has improved the check-in process bringing the check-in mean down by 4.88 minutes
- Pilot has reduced variation in the check-in process by 52.95%
- C-sat scores have improved by 64.72%

Analysis of the pilot for check-in duration with the target mean

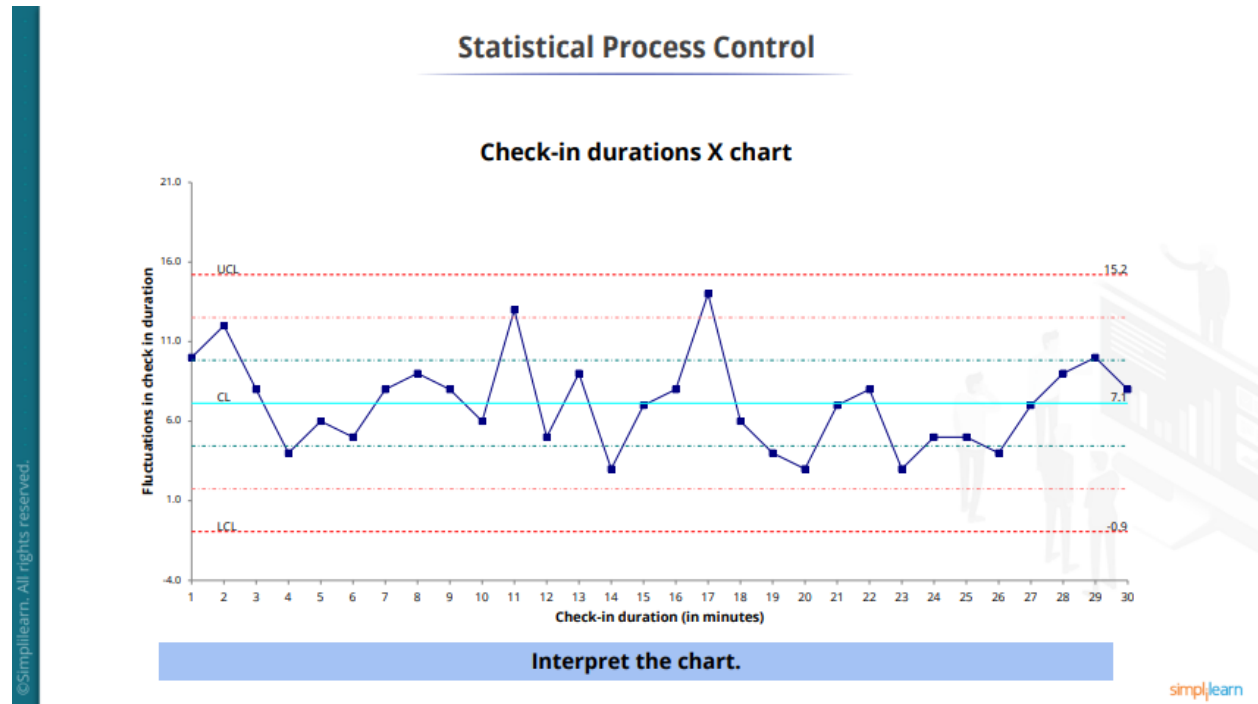
- Null hypothesis: The pilot check-in mean is similar to the target check-in mean
- Alternate hypothesis: The pilot check-in mean is dissimilar to the target check-in mean

Performed Chi-squared test

Mean	15.26732008
P	0.982818293

Inference: Null hypothesis is accepted since $p\text{-value} < 0.05$

6 Control Phase



6.1 Control Phase: Final steps

1. Now the process is control and stable

2. Variations are observed due to common causes

3. Implement the suggested changes and monitor the

7 Conclusion:

Factors that Led to Loss of Revenue:

The factors that lead to revenue loss at the Hotel Cooperates were a delay in guest check-in time that led to an overall delay in the hotel's operations. Another factor was the rampant incidences of overbooking at the premises, and poor quality of services provided the hotel's staff members. Other factors that had a low impact on the problem lost sales were unfriendly hotel staff, poor room maintenance practices, high room rate and wrong invoices to the customers.

Benefits of Pilot Run to the Hotel Revenue:

The pilot runs improved the guest check-in time by 4.88 minutes in addition to reducing variations in the guest check-in procedure by 52.95 percent. Furthermore, the pilot runs enhanced the customer satisfaction score by 64.72 percent at the Hotel