

To Study the compliance rate of end-to-end process of health checkup

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TABLE OF CONTENTS

- ❑ INTRODUCTION
- ❑ LITERATURE REVIEWS
- ❑ METHODOLOGY
- ❑ RESULT
- ❑ CONCLUSION



INTRODUCTION

- The health check-up consists of routine health tests and examinations that can aid in early diagnosis of medical conditions when treatment and cure options are more favorable.
- In the organization, the health checkup is being provided to corporate employees and direct customers who seek to have their health checkup.
- There is a platform provided for them, where they fill in their details and book a reservation.
- The study of my research intends to find out the compliance rate of end-to-end process of health checkup in the organization.
- There are 4 steps after getting a health checkup reservation request – (1) In-progress, (2) from in-progress to confirmed, (3) from confirmed to processed, (4) from in-progress to cancelled or from confirmed to cancelled.

Health Check-up Reservation Request Status

1. In-progress:

- Health check-up request come to platform – The status is in-progress.
- Customer details are sent to lab – The status is in-progress.
- Lab confirms the tests of the customer – The status is in-progress.

2. Confirmed:

- Confirmation mail is sent by organization to customer regarding health check-up – The status is confirmed.
- Lab sends tests report of customers to organization – The status is confirmed.

3. Processed:

- Organization sends tests report to customers within 48 hours – The status is processed.

4. Cancelled:

- The address of customer is non serviceable for pathology test – The status is cancelled.
- The customer did not visit the lab for radiology test – The status is cancelled.
- Customer denied for health check-up – The status is cancelled.

Literature Review



TITLE	AUTHOR/S	YEAR	FEATURES
A STUDY ON OPTIMISATION OF MASTER HEALTH CHECKUP PROCESS AT A MULTISPECIALITY HOSPITAL IN COIMBATORE	Dr. Kannan	2017	1. The study aims to optimize the master health check-up (MHC) process at a multispecialty hospital in Coimbatore using lean management techniques. 2. An android application prototype is developed to facilitate online registration and appointment scheduling for MHC, reducing waiting times.
Process improvement of Preventative Health Check-up	Nihar Bhatia	2013	1. The main objective of the study was to provide the best health check-up services in a timely manner. 2. The aim was to optimize the time spent in the preventive health check-up process and ensure that more than 95% of patients completed their health check-ups within the desired Turn Around Time (TAT).
What is a good health check? An interview study of health check providers' views and practices	Yrrah H. Stol, Eva C. A. Asscher, and Maartje H. N. Schermer	2017	1. Health check providers unanimously agree on minimal criteria for "good" health checks, including focusing on preventable diseases, using reliable and clinically valid tests, ensuring informed and voluntary participation,5 providing more benefits than harms.

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TITLE	AUTHOR/S	YEAR	FEATURES
Good health checks according to the general public; expectations and criteria: a focus group study	Yrrah H. Stol, Eva C. A. Asscher, and Maartje H. N. Schermer	2018	1. Participants in the study believed that the most important characteristics of a good health check-up was its predictive value, along with reliable providers, tests for treatable disease, privacy, no unnecessary risks, and accessibility.
Guidelines for improving quality and standards of laboratories.	National Accreditation Board for Testing and Calibration Laboratories (NABL)	2022	1. The government encourages laboratories to obtain NABL accreditation for all products and applicable tests to ensure customers receive an end-to-end solution. 2. Laboratories are advised to make no claim of being NABL accredited unless all tests are accredited.

RESEARCH QUESTIONS

How much time does it take to respond to a reservation request for a health check-up on the health check-up platform (In-progress to Confirmed)?

How much time does it take to share health check-up reports to customers (Confirmed to processed)?

What is the reason of cancelation of health check-up reservation request (Cancelled)?

OBJECTIVES

- To investigate the compliance of end-to-end process of health check-up
- To identify the reason of non-compliance in health check-up process



METHODOLOGY

Study Design

The study used a descriptive research design.

Study Settings

The study was carried out in an organizational setting.

Study Population

- **Inclusion Criteria:**

The study included participants who voluntarily came for health check-up at the specified organizational settings.

- **Exclusion Criteria:**

The study excluded participants who did not come for health check-up at the specified organizational settings.



Study Duration

The study was conducted for a total of 90 days, from March 1 to May 31, 2023.

Sample Size

The sample size for this study was determined as 200 individuals.

Sampling Technique

For the study, a simple random sampling was used. During the study period, there was an equal chance that anyone who went in for a health checkup would be selected for the sample.

Data Collection Tool

A checklist made to investigate compliance.

Data Analysis

An Excel spreadsheet was used to analyze the data.

Result

Time taken to respond to a reservation request on the platform for confirmation:

The reservation status of health check-up i.e., in-progress to confirmed was analyzed through the graph below –

Total Customers- 200

Compliance (24 hrs) - 167

Non-Compliance (>24 hrs) - 3

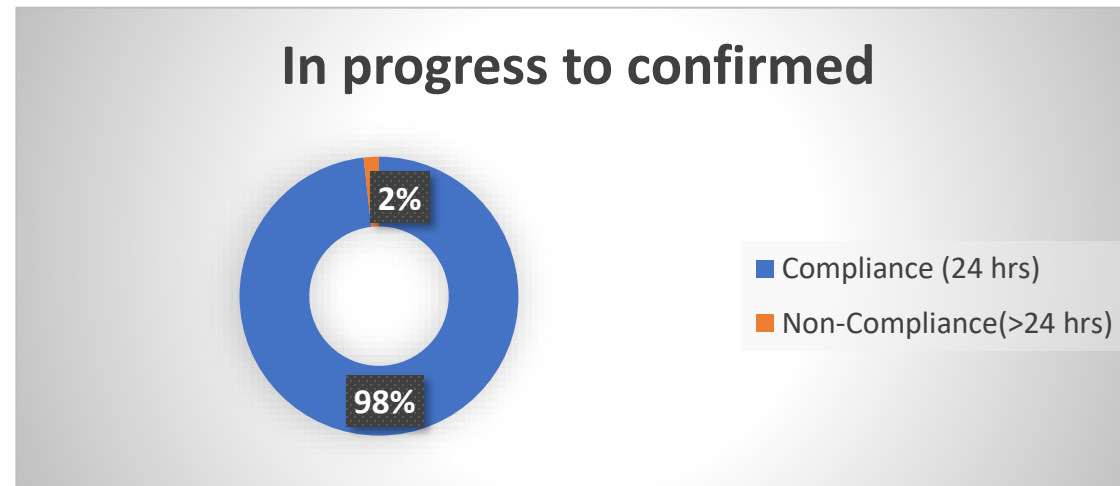


Figure 1.1 – Reservation status from in-progress to confirmed of the study population

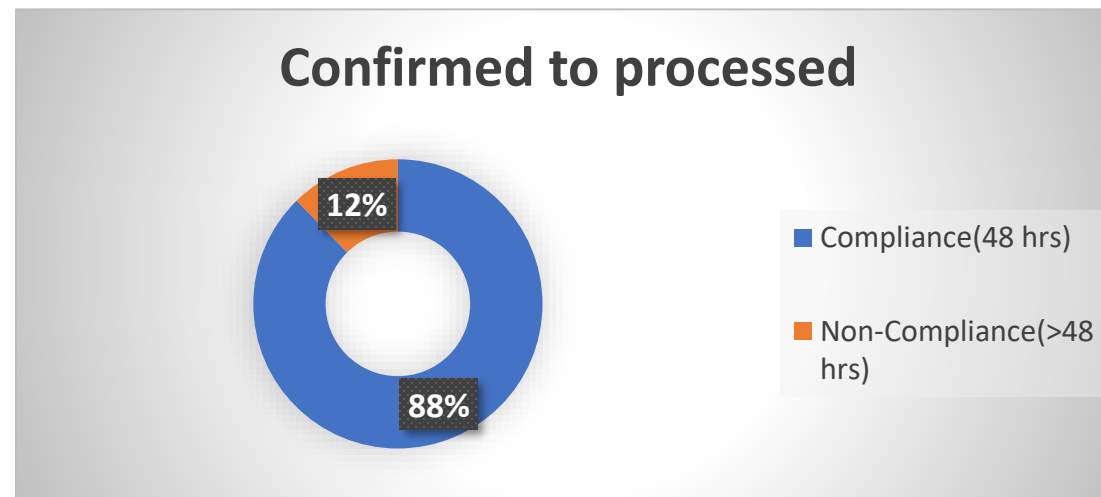
The above graph depicts that 98% were compliance where confirmation mail is delivered to customers within 24 hours i.e., 1 day prior to the health check-up. However, there were 2% non-compliance where confirmation mail is delivered to customers which took more than 24 hours causing to delay of health check-up for the customer.

CONTD.

Time taken to share health check-up reports to customers:

The reservation status of health check-up i.e., confirmed to processed was analyzed through the graph below –

Total Customers- 200



Compliance (48 hrs) - 149

Non-Compliance (>48 hrs) - 21

Figure 1.2 – Reservation status from confirmed to processed of the study population

The above graph depicts that 88% were compliance where health check-up report is delivered to customers within 48 hours i.e., between 2 days after the health check-up is done. However, there were 12% non-compliance where health check-up report is delivered to customers which took more than 48 hours causing to break the TAT for health check-up.

CONTD.

Health check-up reservation request cancellation:

The reason for cancelation of health check-up reservation request was analyzed through the graph below –

Total Customers- 200

Customer did not visit Lab- 23

Non serviceable area- 5

Customer denied- 2

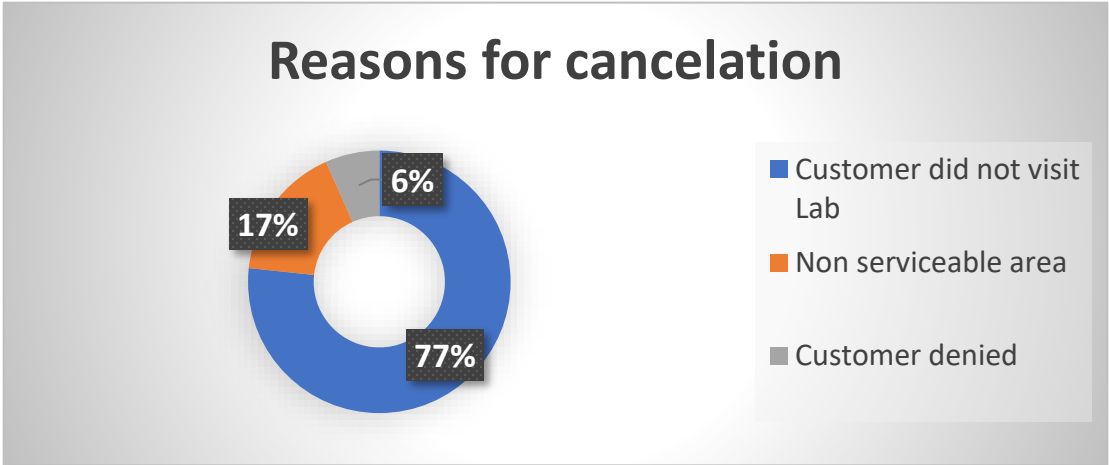


Figure 1.3 – Reason for cancelation of the study population

The above graph depicts that 77% of customers did not visit lab for health check-up, where 12% were non serviceable area for pathology tests which occurs at home, and 6% customers denied for health check-up after booking a reservation request for health check-up on the health check-up platform.

Discussion

- The analysis revealed that most reservation requests out of 200 customers 98% (167) were handled promptly, with customers receiving confirmation emails within 24 hours. This demonstrates a commendable level of efficiency in the service provided by the organization.
- However, there were a few instances, 2% (3) of all customers, where the confirmation process took longer than anticipated, delaying customers' health check-ups.
- It was found that the main reason for non-compliance is, delaying of confirmation from lab leads to delay sending confirmation mail to customer which end up delaying health check-up tests. So, the company must cut down the causes of these delays and take action to speed up response times to give all customers a seamless experience.

CONTD.

- The results indicate that 88% (149) of total customers received their health check-up reports within 48 hours, meeting the platform's turnaround time (TAT) expectations. This is a positive outcome, suggesting that the processing and delivery of reports are generally efficient.
- However, it is concerning that 12% (21) of customers experienced delays in receiving their reports beyond the expected timeframe. Such delays may lead to inconvenience and anxiety among customers awaiting their results.
- It was found that the main reason for non-compliance is lab delays sending health check-up reports to organization lead to delay sending tests reports to customer by organization within 48 hours. The organization should reduce the causes of these delays and implement strategies to minimize them, ensuring timely delivery of health check-up reports to all customers.

CONTD.

- The analysis of reservation request cancellations gives light on the causes of customer no-shows or service denials. Customers who did not come in for their health check-up at the lab accounted for a sizable portion of cancellations, 77% (23), in total. This suggests the need for efficient reminder systems or channels of communication to encourage customers to remember their reservations.
- A further 12% (5) of cancellations for home pathology tests were due to unreachable areas. To ensure accessibility for more customers, it is important for the organization to broaden its service offerings and consider expanding its service area.
- Additionally, after making a reservation request, 6% (2) of customers said they would not undergo a health examination. The organization can address any issues or barriers that prevent customers from completing their health check-ups by gaining an understanding of the causes of these denials.

Conclusion

In accordance with this research study, it revealed that most reservation requests were promptly confirmed within 24 hours. But a small percentage of customers experienced delays in receiving confirmation. The organization generally met the expected turnaround time of 48 hours for sharing health check-up reports with customers but there were instances where delays occurred. Also, there were reasons for health check-up reservation request cancellations, including customers not visiting the lab, non-serviceable areas for home-based tests, and customer denials. To improve the end-to-end process of health check-ups, the organization should focus on enhancing response times for confirmation, optimizing report processing and delivery, implementing effective reminder systems, and expanding coverage areas for non-serviceable areas.

RECOMMENDATIONS

1. **Ensure Timely Responses to Reservation Requests:** Take steps to ensure prompt responses to reservation requests, aiming to send email confirmations within 24 hours. Automated systems and streamlined communication channels can help with this.
2. **Streamline Report Processing and Delivery:** Ensure that internal procedures are optimized to meet the anticipated 48-hour turnaround time for delivering customers' health checkup reports. It might also entail coordinating with outside laboratories or service providers and improving the report generation procedure.
3. **Implement Robust Reminder Systems:** To lower customer no-shows and raise attendance rates for health checkups, develop and implement robust reminder systems through email, SMS, or mobile app notifications.
4. **Extend Coverage Areas:** Look into ways to extend coverage for non-serviceable areas, allowing customers of those areas to access health check-up services. This might entail collaborating with regional health care providers or offering alternative testing methods.
5. **Address Customer Concerns:** Survey or follow-up interviews with customers who denied health check-up will help determine the underlying causes and address any issues or barriers.

Checklist

1. In-progress to Confirmed,

Time taken to respond to a reservation request on the platform for confirmation –

- a. 24 hours (Compliance) –
- b. More than 24 hours (non-compliance) –

2. Confirmed to Processed,

Time taken to share health check-up reports to customers –

- a. 48 hours (Compliance) –
- b. More than 48 hours (non-compliance) –

3. Reasons for cancelation,

- a. Customer did not visit lab –
- b. Non serviceable area –
- c. Customer denied –



THANK YOU

