



*Impact Assessment of COVID Support Project
– Symbiosis University Hospital and Research Centre (SUHRC)*

A Report



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Abbreviations

CSR	Corporate Social Responsibility
ER	Emergency Room
HFNC	High Flow Nasal Cannula
HFNO	High Flow Nasal Oxygen Therapy
ICU	Intensive Care Unit
NGO	Non-Government Organization
SUHRC	Symbiosis University Hospital and Research Centre

Introduction

1.1 HDFC Bank CSR – Parivartan Program

HDFC Bank helps in transforming lives of millions of Indians through various social initiatives. HDFC Bank has a comprehensive program named as ‘Parivartan’ aiming to contribute towards the economic and social development by sustainably empowering its communities. The Parivartan program has been a catalyst in making a difference in the lives of people through its interventions in the areas of rural development, education, skill development and livelihood enhancement, healthcare & hygiene, and financial literacy. Under Parivartan, the social initiatives are delivered through various types of support provided by the bank, such as financial support provided for projects conducted by non-profit organizations across the country, funding educational and similar institutions through scholarships, grants, and promoting giving by employees by matching their contribution to social causes.



1.2 About Symbiosis University Hospital and Research Centre (SUHRC)

Symbiosis University has many institutions that provide with quality education for over 50 years. ‘Symbiosis University Hospital and Research Centre’ (SUHRC) is located in Pune having a new state-of-the-art tertiary care hospital. SUHRC provides modern and professional healthcare to the Rural and Urban community equitably. SUHRC started operations in mid-2019 with a strong team of distinguished healthcare practitioners, qualified nursing and paramedical staff. The hospital has the latest, state-of-the-art technology to assist the doctors. SUHRC is a centrally air-conditioned hospital with different types of accommodations, covering all medical specialities. SUHRC has the latest equipment for diagnostic, therapeutic and surgical facilities, and offers comprehensive, compassionate care to patients (<https://symbiosisuniversityhospital.com>).



1.3 COVID Support Project

In 2021, COVID-19 second wave created a crisis and need for oxygen support as a critical life support equipment emerged as a major requirement both in private and public sector hospitals. To combat the situation and meet this requirement, HDFC Bank under its COVID Support Program under HDFC Parivartan supported Symbiosis University Hospital and Research Centre in setting up their COVID wing with 10 ventilators and 10 HFNO (High Flow Nasal Cannula) for its 35 bedded ICU. The primary aim was to provide the necessary support to patients at the facility when challenges were being faced by the hospitals with limited resources.

1.4 Study Objectives

HDFC Bank intended to conduct the impact assessment of this project with following objectives:

- To evaluate how the COVID wing with additional equipment supported patients during the critical pandemic time during 2021 and onwards
- To know how the support helped the hospital in providing the necessary services

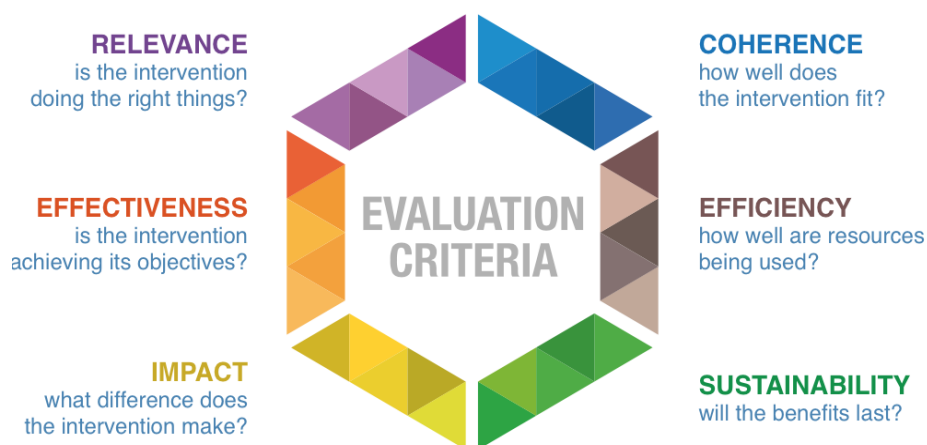
IMPACT PSD Private Limited was entrusted the task of conducting impact evaluation of COVID Support to SUHRC, Pune. The ensuing chapters describe the study methodology and salient findings.

Methodology

This chapter describes the detailed study methodology adopted for the impact assessment study including research methods used, sample size, sampling procedure, survey implementation for the data collection, data management, etc. The details on assessment framework, sample and survey implementation, etc. have been discussed in the forthcoming sections.

Assessment Framework

The standard OECD-DAC criteria¹ which is considered as one of the gold standards in evaluation has been used. This framework recommends adapting this framework, wherever feasible and applicable:



Using this framework, following questions/indicators were adopted to assess the project using the six parameters stated above in the picture. These questions were finalized in discussion with the HDFC team after pre-testing the questionnaire.

	Indicators/Questions
Relevance	<ul style="list-style-type: none"> What criteria were adopted for identification of most deserving recipients of the services at the hospital
Coherence	<ul style="list-style-type: none"> Recipient feedback on timeliness and appropriateness of the support received
Efficiency	<ul style="list-style-type: none"> The extent to which the support contributed to the immediate needs of the hospital
Effectiveness	<ul style="list-style-type: none"> The extent to which hospital was able to provide services to patients
Impact	<ul style="list-style-type: none"> Impact of this support on the lives of patients

¹ <https://www.oecd.org/dac/evaluation/dacriteriaforevaluatingdevelopmentassistance.htm>

	Indicators/Questions
Sustainability	<ul style="list-style-type: none"> In what ways does this infrastructure supports the service delivery from the hospital in future How the hospital plans to use this infrastructure support in future

2.1 Research Methodology

A mixed methods approach was adopted wherein physical verification of ventilators and HFNCs was undertaken. Additionally, in-depth interview was undertaken with the Chief Intensivist and ICU/ER In-charge.

2.2 Sample Coverage

All 10 ventilators and 10 HFNCs were physically verified at medical ICU, surgical ICU and Emergency Room (ER) at SUHRC. All the ventilators and HFNCs with accessories were in working conditions and being used for the patients at the time of assessment.

Ventilator Model (GE/Wipro)

CARESCAPER R 860 Adult and Paediatric Ventilator

HFNC Model (Fisher Packel)

HI FLOW METER MACHINE WITH ACCESSORIES 70 Litres + AIRVO HUMIDIFIER WITH DISINFECTION KIT PT101UK and POLE STAND with CLAMP 900PT421

2.3 Development of Tools

A customized tool for physical verification (Check-list) as well as discussion guide for in-depth interview were developed. Both the study tools were shared with HDFC Bank CSR for feedback and approvals.

2.4 Survey Implementation

- A senior researcher from IMPACT visited the SUHRC to make site visit and undertake physical verification of the ventilators and HFNCs.
- Initially, Executive Secretary to CEO, SUHRC was contacted as the position of CEO is currently vacant.
- The detailed information was obtained from the Finance Director who headed the team of procurement of the ventilators from the vendor (Wipro GE).
- All the donation utilization statements were verified and installation documents were scrutinized
- Further, Head – Biomedical Engineering at SUHRC was contacted who coordinated for the purchase as well as installation of ventilators and HFNCs at the hospital. Information was gathered on process of installation of machines.
- As the last step, physical visits were made to medical ICU, surgical ICU and emergency room at SUHRC. The visit was coordinated with Head, Biomedical Engineering and information on how the ventilators support helped the SUHRC in patients' management during COVID-19 second wave as well as during the subsequent year till date was obtained. The detailed information was provided by Chief Intensivist at SUHRC.
- Post collection of information, all the ventilators and HFNCs were physically verified for assessing the physical condition, functionality and maintenance provisioning.

2.5 Data Analysis

All the collected information was collated and content analysis was undertaken. The data received from SUHRC on the days of utilization of ventilators since installation till January 2023 was analysed to draw conclusion regarding the HDFC Bank support.

Salient Findings

This chapter discusses the findings based on the site visit made to SUHRC, Pune and physical verification process as well as in-depth discussion conducted with the target respondents.

The findings have been discussed as per the OECD-DAC Criteria and description has been provided by its components as follows:

Relevance

The second wave of COVID-19 in March 2021 hit very hard and the medical infrastructure of the country faced a lot of challenges across government, private and non-profit sectors. Huge volume of patients in the medical institutions created shortage of hospital beds, availability of oxygen cylinders, ventilators/HFNCs and other medical supplies that led to devastating scenarios across the nation.

SUHRC initiated functioning in mid-2019 and was progressing during the year 2020 when COVID-19 emerged as a big challenge that forced it to demonstrate its capacity and capabilities. During 2020, SUHRC became the first nodal hospital in the Pune district providing COVID related medical support to patients. SUHRC successfully provided 300 beds for the COVID treatment and management and got recognition as a large scale COVID support facility in the entire district. Since SUHRC was known as the nodal medical hospital for COVID treatment, it received large number of patients during the second wave in 2021 and patients were directly reaching to SUHRC for medical support.

At the time of crisis, considering the demand raised for donation of ventilators to HDFC Bank by SUHRC officials – the support was provided by HDFC Bank under the COVID support project. This established the relevance of the support grant to SUHRC.

Coherence

At the onset, it is worth mentioning that Chief Intensivist and Finance Director interacted during the visit expressed their sincere acknowledgement for the timely support to SUHRC.

Both the officials (Chief Intensivist and Finance Director) are in place since the beginning of SUHRC in 2019. These officials were with SUHRC in both the waves of COVID-19 pandemic and were therefore appropriate respondents to share their views and opinions on the timeliness of support SUHRC received from HDFC Bank. While discussing on the turn-around time in receiving the approval for the financial assistance from HDFC Bank, they shared that SUHRC was in the process of purchasing the ventilators with the vendors and HDFC Bank was approached to seek financial assistance, which was instantly approved. This timely approval

for the financial support facilitated the SUHRC in processing the orders immediately so that ventilators could be imported from the foreign manufacturers through Wipro GE, Bengaluru, a local vendor.

The orders for purchase were placed between April and May 2021 and the ventilators and HFNCs were received between May to June 2021 in a phased manner. This was the crucial phase when ventilators and HFNCs were needed the most for management of respiratory disorders due to COVID variant. Further, SUHRC officials expressed their gratitude that the appropriate and adequate quantity or number of ventilators and HFNCs were provided to them for the management of patients at the crucial time.

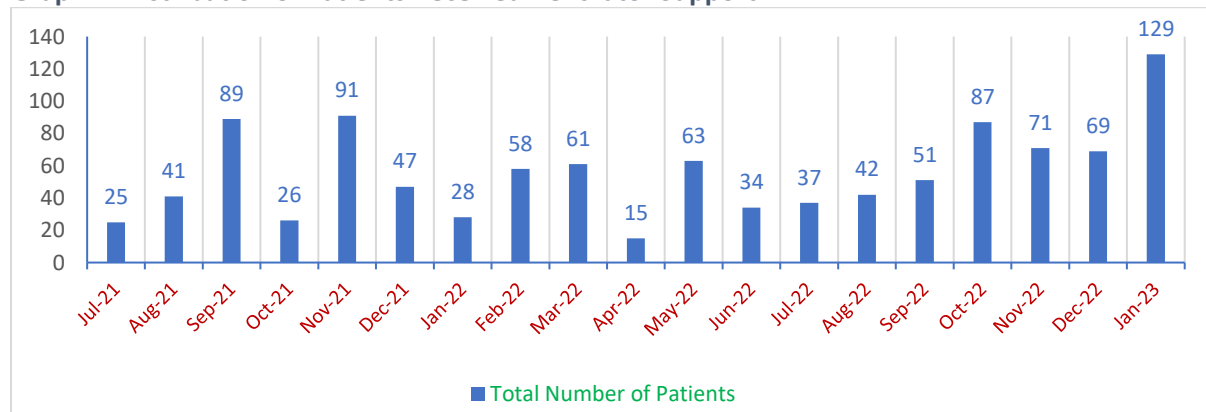
Efficiency

To understand the efficiency of HDFC Bank support that contributed to the immediate needs of the hospital, the officials were further posed with the questions to know how the support contributed to their work. The chief intensivist shared that SUHRC had 11 ventilators and 5 HFNCs prior to the receipt of HDFC Bank support. During the second wave, a high volume of patients was approaching SUHRC considering that it had a large infrastructure set-up that provided all the needed medical help like oxygen supply and ventilator support. At that time of crisis, SUHRC medical doctors planned for the expansion and establish separate ICU with ventilators to manage the patient load. Since the need for ventilators and HFNCs was addressed through HDFC Bank's support, they could provide oxygen support to a large number of patients. Thus, HDFC Bank support expanded SUHRC's medical infrastructure set-up, and SUHRC could manage with 21 ventilators and 15 HFNCs. As per estimates, SUHRC was able to manage about 6,600 patients during the second COVID wave (includes non-ventilator patients also).

Effectiveness

SUHRC shared its data on number of days of ventilators use across more than a year since it has received HDFC Bank support. Findings have shown that a total of 1064 patients were put on ventilators support. Graph 1 illustrates the number of patients managed with ventilators support from July 2021 to January 2023.

Graph 1: Distribution of Patients Received Ventilator Support

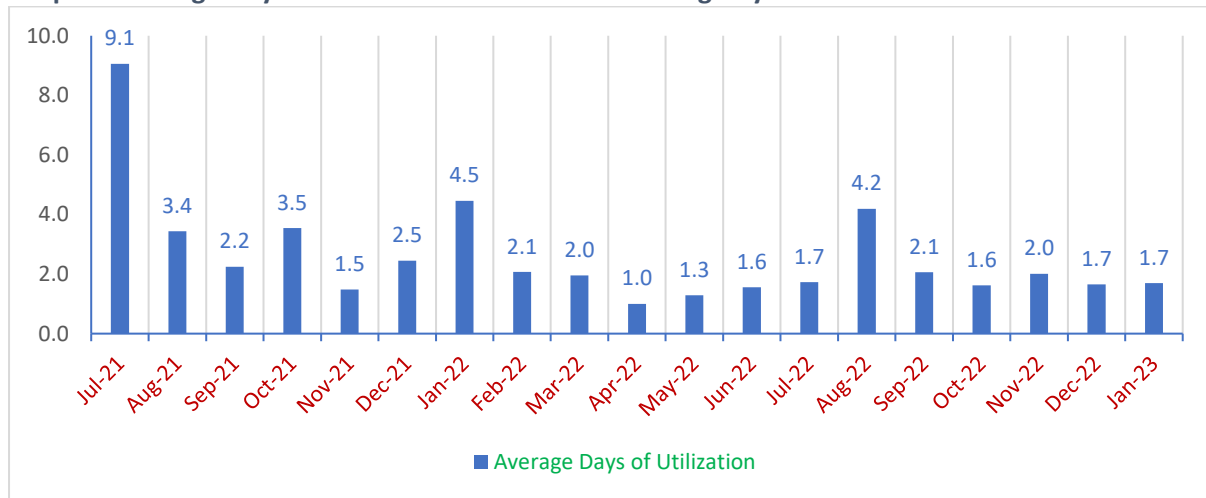


Of these 1064 patients, 927 (87%) were on ventilator for 1 day followed by 10 (1%) for 2-7 days, 92 (9%) for 10 days and 35 (3%) for 14 days (2 weeks).

Findings revealed that a total of 578 patients were provided with ventilators support between July 2021 to June 2022 (one year). Since July 2022 to January 2023, number of patients supported with similar support was 486.

An attempt was made to compute the average days of ventilators' use for the patients across different months. Graph 2 depicts the average days of utilization of ventilators across medical and surgical ICUs and Emergency Room at SUHRC.

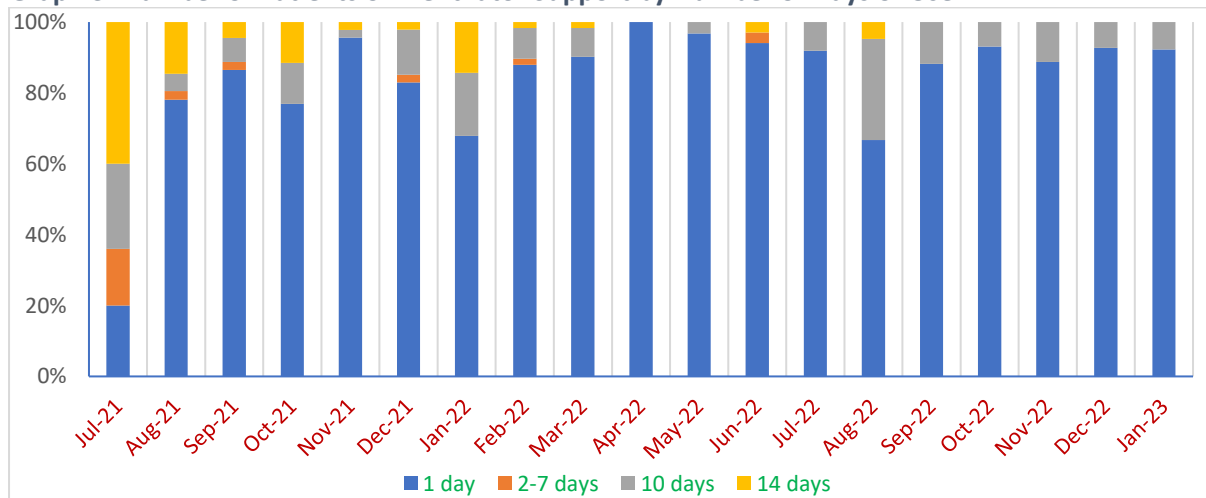
Graph 2: Average Days of Utilization of Ventilators During July 2021 – Jan. 2023



During the second wave in the month of July 2021, the average days of utilization was found to be the maximum (9 days) and 2-5 days on an average across subsequent months.

Another attempt was made to see the number of patients provided with ventilator support in each month by number of days. Graph 3 portrays the distribution of patients by months and number of days provided with ventilator support.

Graph 3: Number of Patients on Ventilator Support by Number of Days of Use



Evidently, more patients were kept on ventilators in July 2021 when HDFC Bank support reached to SUHRC indicating the critical need for the support. Large number of patients were put on ventilators for greater number of days during July to October 2021.

Impact

HDFC Bank support provided the needful support to the patients. The Chief Intensivist during the discussion shared that patients who were critically ill needed respiration support were supported with ventilators. She also shared that the medical staff who were involved in the patients' care have many case studies wherein families with children got benefitted as their parents received medical care at SUHRC ventilator support.

During the interaction, Chief Intensivist mentioned that SUHRC provides medical care without any charges (free of cost) to all the patients, except the cost for consumables and other maintenance costing. The consumables include medicine and medical procedures related charges to provide infection free hygienic services. SUHRC does not charge money for ICU and ventilator support. Thus, HDFC Bank's supported translated into a big financial relief for patients were not charged for ventilators used in treatment. The following table illustrates the total amount saved due to HDFC Bank support by number of days ventilator services were availed.

Table 1: Estimated Amount Saved by Patients Received Ventilator Support

Patients Used Ventilator Support for	Number of Patients	Amount (INR) Saved
One day	927	1,85,40,000
Two days	2	80,000
Three days	2	1,20,000
Four days	1	80,000
Five days	2	2,00,000
Six days	1	1,20,000
Seven days	1	1,40,000
Nine days	1	1,80,000
Ten days	92	1,84,00,000
Fourteen days	35	98,00,000
Total	1064	4,76,60,000

During the discussion, Chief Intensivist mentioned that the charges in private sector hospitals for the ventilator support varies between INR 20,000 to 24,000 on the basis of type of ventilator support. Considering the minimum INR 20,000 per day per patient use, the impact on patients was estimated in terms of money saved due to ventilator support because of HDFC Bank contribution. For example, a total 927 patients were kept on ventilator for a day only and all these patients saved INR 20,000 per day for the support which they would have paid in other private sector hospitals.

The most encouraging factor to mention here that lives of 99% of the patients were saved due to these ventilators as only 11 deaths were reported out of 1064 patients availed the ventilator support.

Financial support has always been considered as the major contribution which HDFC Bank could provide to patients through SUHRC COVID support program. In a way, the HDFC Bank support managed to provide support to patients which is more than the amount donated to SUHRC.

Sustainability

At SUHRC, the ventilators and HFNCs are being appropriately managed by Biomedical Engineering division at SUHRC with respect to disinfection and hygiene maintenance. However, all the ventilators and HFNCs are under warranty till June 2023 which specifically indicates that equipment are being serviced by the suppliers till date. Post this phase, the SUHRC would take over the process or opt for regular AMC agreement with the service providers. The assessment team observed that SUHRC has the capacity and support mechanism through which the ventilators and HFNCs would remain safe and usable for years indicating the sustainability of support to the patients.

Further, in-depth discussion with officials indicates that ventilators and HFNCs are regularly maintained and kept for ready to use in any emergency situations. SUHRC has been using this support unbiasedly and follows a “No Discrimination” policy for all patients.

The Chief Intensivist claimed that SUHRC is fully prepared to manage any future emergency with respect to COVID or other related illnesses and HDFC Bank support has made a significant contribution to this preparedness.

On asking, SUHRC officials seek more financial support as a consolidated grant for a few years so that SUHRC can support patients from economically weaker sections and spend money for buying medicines and consumables for their treatment and surgeries.

Physical Verification

Particulars	Ventilators	HFNCs
Model	CARESCAPER R 860 Adult and Paediatric Ventilator	HI FLOW METER MACHINE WITH ACCESSORIES 70 Litres + AIRVO HUMIDIFIER WITH DISINFECTION KIT PT101UK and POLE STAND with CLAMP 900PT421
Manufacturer	GE	Fisher Paykel Healthcare India Pvt Ltd
Supplier	Wipro GE Healthcare Pvt Ltd, Bengaluru	Yoga Enterprises
Quantity Purchased	10	10
Available	All	All
Functional	All	All

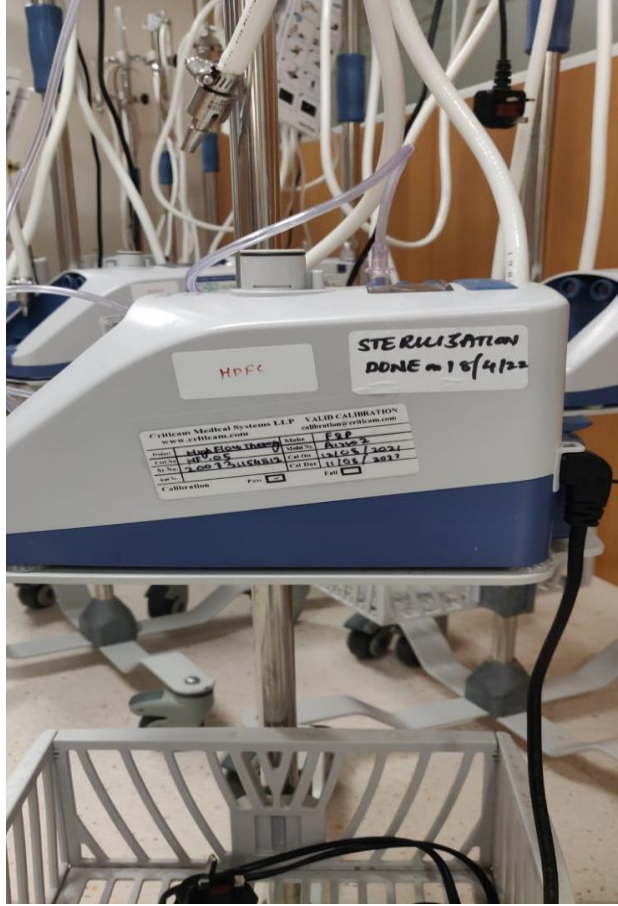
Particulars	Ventilators	HFNCs
Condition	Good	Good
Maintenance	Maintained	Maintained
Servicing	All serviced	All serviced
Warranty	Currently under warranty	Currently under warranty
HDFC Branding	Handwritten 'HDFC' small sticker	Handwritten 'HDFC' small sticker

Support at a Glance

Ventilators



HFNCs



Conclusion

The assessment clearly established the effectiveness of the COVID project support provided by HDFC Bank. The HDFC Bank support has provided SUHRC an edge in providing the essential medical care services as compared to the private sector hospitals.

With respect to efficiency and impact, the HDFC Bank support has provided benefits to more than 1000 patients during the last year availing 2,383 days of utilization of ventilator support between July 2021 to January 2023. This proves that HDFC Bank support has not only benefitted the patients during COVID second wave but also during the regular months in ICUs at SUHRC.

As an impact, the HDFC Bank support could provide an opportunity to SUHRC in establishing the Credibility and Trust among the patients in terms of service provisioning such as ventilator support and HFNCs availability. Moreover, SUHRC does not charge any fee for ventilators support, due to which patients could save their money which is a big relief for the patients and their families. This could all happen just because of HDFC Bank support.

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