**SECTOR: A STUDY IN DELHI NCR** 

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IMPACT OF ENTREPRENEURSHIP ON HEALTHCARE SECTOR: A STUDY IN

**DELHI NCR** 

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#### **Abstract**

The purpose of this study is about How Entrepreneurship is impacting Healthcare in India, specific to Delhi NCR. The exploration of opportunity with hardly any resources is referred to as entrepreneurship. Entrepreneurs in the health and medical disciplines do the same manner, with the goal of generating value through innovation. Creating value in digital health products or services, care-delivery innovation, or new business processes, services, or platforms is what healthcare entrepreneurship is all about. This research was carried out using both primary and secondary data, i.e., literature review as secondary data and primary data out of quantitative and qualitative research. The primary objective was to research the impact on consumers: patients and physicians w.r.t various innovations done in achieving healthcare objectives for any entrepreneur along with respective hypotheses. The unit of analysis in this study was consumer level. So, two different questionnaire surveys were applied with different sets of target respondents residing in Delhi NCR. In Quantitative research method, SPSS tool was used to conduct hypothesis testing and statistical methods like ANOVA, T-Test were conducted to achieve results. Survey for patients covered questionnaire on demographics, better accessibility of healthcare resources, affordable healthcare, improved healthcare outcomes, health awareness and likewise of the respondents for generic questions about healthcare services and products offered by healthcare startups. While the other survey, which was for physicians, covered questions about better diagnostic and therapeutic tools, increased number of patients, better access to patients, brand building, education for young physicians and likewise. Keywords: Entrepreneur, Entrepreneurship, Healthcare, Health Industry, Indian

Healthcare, Innovation.

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#### Introduction

Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence (Robert D. Hisrich and Michael P. Peters, 1998). Healthcare sector is the largest industry sector to be taken care of as it is directly related to public health. Here the growth is driven by demographics and patient care and various healthcare tools and services are distinguished by innovation. Today we have many startups on telemedicine, video consultation, wearable technologies, online payment mode, online pharma services, portable medical devices, insurance coverage, home fitness and nutrition. Many people are beginning to see the need of entrepreneurship in healthcare and are embracing their entrepreneurial education, habits, and knowledge in order to survive. However, the healthcare industry is primed for transformation and innovation; all that is required is for the potential to be identified. Many companies are moving into healthcare or healthcare-related sectors as technology improves and becomes more widely available, spurred by entrepreneurs who realize the value of this emerging industry. Startups and small-scale firms appear to be similar in that they are small in size, operate with limited funds, and provide a large number of job opportunities; however, startups differ in that they operate on a completely different business model that generates new customers, new demands, and is based on a repeatable and scalable idea.

#### **Literature Review**

In terms of scholarly research and the number of creative businesses, entrepreneurship in the healthcare sector has gotten a lot of attention in the previous two decades. Several actors along the healthcare value chain, particularly non-traditional healthcare companies, have driven entrepreneurial activity and innovations, and will continue to do so (Ralf Wilden, Massimo Garbuio, Federica Angeli, Daniele Mascia, 2018). Healthcare Entrepreneurship will appeal to health-care experts and entrepreneurs alike, as well as managers of innovative health-care businesses and health-care policymakers. By altering lives, preventing disease, restoring individuals to full health, and making the health-care delivery system more efficient, innovation can tackle many of our most important health-care concerns. For three key reasons, the health of a country's people is important to that country's economic prosperity. To begin with, as a measure of economic growth, it demonstrates a country's ability to provide the most basic requirements of its citizens (food, clothing, shelter, and adequate sanitary conditions), as well as its success or failure in doing so. The relationship between basic metrics like child mortality. On

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the one hand, the relationship between life expectancy and per capita income is very strong and well documented in economic literature. Any country's healthcare system is complex. It is based on a number of elements that influence health status, including the country's economic outlook, population lifestyle, literacy rate, healthcare insurance, medical facility availability, socioeconomic situation, health infrastructure availability, and per capita health spending (Park K, 1994). Healthcare has grown to become India's greatest growth-oriented sector, both in terms of employment and revenue. Medical devices, clinical services, critical care, telemedicine, diagnostics, medical research, health insurance, and medical instruments are all included in healthcare. This sector has had rapid expansion over the previous decade, thanks to its expanded coverage, technical advancements, and rising private and expenditure. According to the literature study, there isn't much significant research being done on the Indian startup ecosystem. The available study was primarily based on a review of secondary data and with reference to the government's 'Startup India' action plan. Every year, the number of young Indians who become entrepreneurs or who thrive on an entrepreneurial dream grows tremendously. India has the world's third largest startup ecosystem according to NASSCOM, 2019. Innovation and entrepreneurship leadership should be effective in using resources within healthcare organizations and the creative ability of its personnel to deliver a long-term solution to important global issues such as the ageing population, rising expenses, and long waiting lists, as well as the challenges of staff recruitment and retention, in a novel way (Claudine Kearney, 2022).

#### **Objective**

The primary objective was to research the impact on consumers: patients and physicians with respect to various innovations done in achieving healthcare objectives for any entrepreneur along with respective hypotheses. For patients, their take on better accessibility of healthcare resources, affordable healthcare, improved healthcare outcomes, health awareness and likewise based on their demographics was taken into consideration. And for physicians, better diagnostic and therapeutic tools, increased number of patients, better access to patients, brand building, education for young physicians and likewise was taken into consideration.

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**Hypotheses:** 

Ho1: There is no significant difference between genders in relation to patient's satisfaction of using healthcare services offered by startups.

Ho2: There is no significant difference between patient's income in relation of usinghealthcare services offered by startups.

Ho3: There is no significant difference between physician's experience in relation of using healthcare services offered by startups.

Ho4: There is no significant difference between physician's practice location (rural vs urban) in relation of using healthcare services offered by startups.

#### Research Methodology and Data Analysis

The unit of analysis in this study is the consumer level. Questionnaire survey was applied in this study to collect information from the consumers (refer Annexure section 1.0 for survey questionnaires). Information collected through consumer survey is utilized for further analysis and verification of hypotheses. The consumers were asked to fill the questionnaire in Google Form. Around 84responses from patients and 25 from physicians were received from respective surveys. SPSS tool was used to conduct the hypothesis testing. Data was normalized. Both ANOVA and T-test were conducted using 95% confidence interval. The Significance level or p-value was generated for each test. For p-value < 0.05, the null hypothesis was rejected. With p-value > 0.05, we failed to reject the null hypothesis. Following statistical test method was used to test all the hypotheses:

- T-test for hypotheses based on gender.
- ANOVA test for hypotheses based on consumer's income.
- ANOVA test for hypotheses based on physician's experience.
- T-test for hypotheses based on physician's practice location.

SPSS is short for Statistical Package for the Social Sciences, and it's used by various kinds of researchers for complex statistical data analysis. An ANOVA test is a way to find out if survey or experiment results are significant. In other words, they help figuring out if we need to reject the null hypothesis or accept the alternate hypothesis. Basically, we test the groups to see if there is a difference between them. A t-test is a statistical test that is used to compare the means of two groups. It is often used in hypothesis testing to determine whether a process or treatment influences the population of interest, or whether two groups are different from one another. Significance level is conditional upon the null hypothesis being true is unrelated to the truth or falsity of the research hypothesis. A p-value higher than 0.05 (> 0.05) is not statistically significant and indicates strong evidence for the null hypothesis. After generating the data, the first step was to make the data suitable for final analysis. Data was coded by assigning symbols and characters to variables in the questionnaire. The codes have been presented in the table below:

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S. No	Type of Data	Coding
1.	Items based on Likert scale	Strongly Disagree=1; Disagree=2; Undecided =3;
		Agree=4 and Strongly Agree=5
2.	Gender of the patient	Female=1, Male=2
3.	Physician's practice location	Rural =1, Urban=2
5.	Income of the patient	0-5 lacs = 1, 5-15 lacs =1,15-25 lacs=23,>25 lacs=3

#### Survey Building and Data Collection

Survey for patients covered questionnaire on demographics, better accessibility of healthcare resources, affordable healthcare, improved healthcare outcomes, health awareness and likewise of the respondents for generic questions about healthcare services and products offered by healthcare startups. While the other survey, which was for physicians, covered questions about better diagnostic and therapeutic tools, increased number of patients, better access to patients, brand building, education for young physicians and likewise. The survey was opened for oneweek'stime andsent out to nearly 285 peopleof which 84 (patients) and 25 (physicians) responded to the survey.

#### Results

#### HYPOTHESIS Ho1

# There is no significant difference between genders in relation to patient's satisfaction of using healthcare services offered by startups.

Result: No significant difference was found in the patient's satisfaction of using healthcare services offered by startup with significance level of 0.54, failing to reject the null hypothesis and stating that gender of consumers did not affect satisfaction of using healthcare services.

#### Cumulative data

Cumulative data													
	t-test result Summary												
Dependent	Factor	Significance level	Hypothesis result	Summary									
Perception	Male, Female	0.54	Fail to reject null hypothesis	There is no significant difference in the satisfaction of using healthcare services offered by startups in relation to consumer's gender.									

#### **Descriptive Statistics**

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Sample	N	Mean	StDev.	

Sample	N	Mean	StDev	SE Mean
Female	576	4.280	0.787	0.033
Male	768	4.305	0.680	0.025

The total is cumulative of 84 patients with 16 survey questions.

Individual rating of each service:

Services offered by	P Value	Mean		Result	Hypothesis	Inference	
startups		Female	Male				
<ol> <li>Startups offers services to find the physician with ease using online/offline channels</li> <li>Startup offers services to book</li> </ol>	.001	4.8	4.5	Difference among the means are significant Difference among the means	Reject null hypothesis  Reject null hypothesis	Female able to find Physician with more ease than male using online/Offline channels Female able to book Physician with more ease than male using	
appointment with physician with ease				is significant		online/Offline channels	
3. Able to order medicine using startups app/online portal	.009	4.1	4.6	Difference among the means is significant	Reject null hypothesis	Male able to order medicine with more ease than Female using online/Offline channels	
4. Able to reach hospital on time using startups transportation services, navigation tools	0.697	3.6	3.7	Difference among the means is not significant	Fail to reject null hypothesis	Male and Female both able to reach hospital on time using startups services.	
5. Startups offers on time arrival of ambulance	.084	3.66	4	Difference among the means is not significant	Fail to reject null hypothesis	Male and Female able to get ambulance on time offered by startups	

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6. Able to connect to hospital using startups services among the means is not significant significant significant should be able to connect to hospital using startup services significant		<u>,</u>					
startups services   1	6. Able to connect	0.399	4.5	4.3	Difference	Fail to reject	Both male and female
is not significant  7. Startups offers health checkups, easily accessible  8. Rates offered by startups for health checkups are reasonable  O.127  O.127  O.138  O.138  O.138  O.138  O.138  O.137  O.138  O.127  O.138  O.138  O.138  O.138  O.138  O.138  O.147  O.156  O.157  O.	to hospital using				among	null	able to connect to
Significant   Fail to reject   Both Female and male   able to book tests	startups services				the means	hypothesis	hospital using startup
7. Startups offers health checkups, easily accessible  O.827 Startups for health checkups are reasonable  O.127 O.127 O.138 O.138 O.138 O.138 O.127 O.138 O.138 O.138 O.137 O.138 O.138 O.138 O.137 O.138 O.					is not		services
7. Startups offers health checkups, easily accessible  0.827					significant		
7. Startups offers health checkups, easily accessible  8. Rates offered by startups for health checkups are reasonable  0.127   4.6   4.5   Difference among the means is not significant  9. Diagnostic labs results operated by startups are reliable  10. Startups offers  10. Startups offers  11. Startups offers  11. Startups offers  12. Startup offers  12. Startup offers  13. Augusta		1	4.5	4.5	Difference	Fail to reject	Both Female and male
health checkups, easily accessible    Color					among	null	able to book tests
easily accessible   0.827   4.1   4.1   Difference   Fail to reject   Both Female and Male   finds health checkups   the means   hypothesis   rates as reasonable.    8. Rates offered by startups for health   0.127   4.6   4.5   Difference   Fail to reject   among   null   finds health checkups   rates as reasonable.    9. Diagnostic labs   results operated by startups are reliable   0.138   4.3   4.1   Difference   Fail to reject   among   null   finds diagnostic labs   results operated by   startups are reliable   1.5 tartups offers   Fail to reject   among   null   finds blood bank   provision for blood   bank   significant   si not   significant   si not   startups   startups   significant   si not   startups   startups   startups   startups   significant   si not   startups   s	7. Startups offers				the means	hypothesis	online using startups
8. Rates offered by startups for health checkups are reasonable  0.127	health checkups,				is not		
8. Rates offered by startups for health checkups are reasonable  O.127  4.6  O.127  4.6  O.138  O.147  O.157  O.15	easily accessible				significant		
startups for health checkups are reasonable  O.127		0.827	4.1	4.1	Difference	Fail to reject	Both Female and Male
checkups are reasonable    Significant   Significant   Significant	8. Rates offered by				among	null	finds health checkups
reasonable  O.127	startups for health				the means	hypothesis	rates as reasonable.
9. Diagnostic labs results operated by startups are reliable  0.138	checkups are				is not		
among the means provided by startups are reliable  O.138  O.149  O.159	reasonable				significant		
9. Diagnostic labs results operated by startups are reliable  0.138		0.127	4.6	4.5	Difference	Fail to reject	Both female and male
results operated by startups are reliable  O.138  O.149  O.159  O					among	null	finds diagnostic labs
startups are reliable  O.138	9. Diagnostic labs				the means	hypothesis	results reliable
O.138 4.3 4.1 Difference among null finds blood bank provision for blood bank  10 Startups offers Provision for blood bank  10 O.127 4.6 4.5 Difference among null startups  11.Startups offers Preliable health insurance  O.021 4.5 4.2 Difference significant  O.021 4.5 4.2 Difference among hypothesis insurance as reliable.  Reject null Female find startups to provide health awareness than male finds startups  Nypothesis to provide health awareness than male finds startups  Nypothesis to provide health awareness than male is	results operated by				is not		
among the means hypothesis provision with startups  O.127	startups are reliable				significant		
the means hypothesis provision with startups  bank  O.127  4.6  4.5  Difference among null finds startups hypothesis is not significant  11.Startups offers reliable health insurance  O.021  4.5  Difference among null finds startups health insurance as reliable.  Significant  Fail to reject among null finds startups health insurance as reliable.  Significant  Female find startups to provide health awareness than male is		0.138	4.3	4.1	Difference	Fail to reject	Both female and male
Provision for blood bank is not significant on the means of the means					among	null	finds blood bank
Provision for blood bank is not significant of the means	10 Startups offers				the means	hypothesis	provision with
bank significant of the means o	_				is not		startups
among null finds startups health the means hypothesis insurance as reliable.  11.Startups offers reliable health is not significant  O.021 4.5 4.2 Difference among hypothesis to provide health the means the means is	bank				significant		-
among null finds startups health the means hypothesis insurance as reliable.  11.Startups offers reliable health is not significant  O.021 4.5 4.2 Difference among hypothesis to provide health the means the means is		0.127	4.6	4.5		Fail to reject	Both female and male
the means hypothesis insurance as reliable.  reliable health is not significant  0.021		•	-			_	
reliable health is not significant of significant o	11.Startups offers					hypothesis	_
insurance significant o.021 4.5 4.2 Difference Reject null Female find startups among hypothesis to provide health awareness than male 12 Startup offers is	_						
O.021 4.5 4.2 Difference Reject null Female find startups among hypothesis to provide health awareness than male is	insurance						
among hypothesis to provide health awareness than male is		0.021	4.5	4.2		Reject null	Female find startups
the means awareness than male is							•
12 Startup offers is					_		
	12 Startup offers						
DISHIIICUIT	Health awareness				significant		

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	<del>, , ,</del>					
	0.008	4.3	4.6	Difference	Reject null	Male uses app/website
13.Startup offers				among	hypothesis	more than female to
apps/website to				the means		book appointment and
book quick				is		finds quicker
appointment				significant		
	.001	4	4.5	Difference	Reject null	Male able to order
14.Startups offers				among	hypothesis	medicine at home
delivery of				the means		using startups
healthcare products				is		
at home				significant		
	0.032	4	4.3	Difference	Reject null	Male finds startups to
				among	hypothesis	provide low-cost
				the means		surgery than female
15 Startups offers				is		
low-cost Surgery				significant		
16. The services	0.065	3.6	4	Difference	Fail to reject	Male finds services
offered by startups				among	null	offered by startup to
is affordable,				the means	hypothesis	more reliable than
reliable and				is not		female
transparent than				significant		
convectional						
healthcare business						

#### **HYPOTHESIS Ho2**

There is no significant difference between patient's income in relation of using healthcare services offered by startups.

Result: Significant difference was found in the patients' satisfaction towards using services offered by healthcare startups, with significance level of 0.006, rejecting the null hypothesis.

ANOVA test result Summary											
Dependent	Dependent Factor Significance level Hypothesis result										
Patients' satisfaction	Patients' income	0.006	Reject null hypothesis	Differences among the means are significant.							

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X	N	Mean	StDev	95% CI
>25 lacs	72	4.1389	0.7747	(3.9538, 4.3239)
o-5 lacs	216	3.9306	0.7715	(3.8237, 4.0374)
15-25 lacs	216	4.1759	0.8444	(4.0691, 4.2828)
5-15 lacs	504	4.0020	0.7964	(3.9320, 4.0719)

 $Pooled\ StDev = 0.800201$ 

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
X	3	7.971	2.6570	4.15	0.006
Error	1004	642.882	0.6403		
Total	1007	650.853			

Services	P		M	ean		Result	Hypothesis	Inference
offered by startups	Value	>25 lac	15- 25 lac	5-15 lac	o-5 lac			
1. Startups offers services to find the physician with ease using online/offline channels	0.465	4.5	4	4.3	4.1	Difference among the means is not significant	Fail to reject null hypothesis	All income levels able to find physician with ease using startups services
2. Startup offers services to book appointment with physician with ease	.087	3.66	4.3	4.02	4.2	Difference among the means is not significant	Fail to reject null hypothesis	All income level able to book appointment with Physician
3. Able to order medicine using startups app/online portal	0.155	4.66	3.9	4.2	4.2	Difference among the means is not significant	Fail to reject null hypothesis	All income levels able to order medicines using

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								app/online portal
4. Able to reach hospital on time using startups transportation services,	0.056	3.3	4.1	3.5	3.5	Difference among the means is not significant	Fail to reject null hypothesis	All income levels able to reach hospital on time
navigation tools								
5. Startups offers on time arrival of ambulance	.008	4.6	4.05	3.4	3.6	Difference among the means is significant	Reject null hypothesis	Income with >15 lacs find ambulance to reach on time
6. Able to connect to hospital during emergencies using startups services	0.118	3.8	3.5	3.8	3.4	Difference among the means is not significant	Fail to reject null hypothesis	All income level able to connect to hospital
7. Startups offers health checkups, easily accessible	0.526	4.66	4.33	4.5	4.33	Difference among the means is not significant	Fail to reject null hypothesis	All income level finds heath checkups easily accessible
8. Rates offered by startups for health checkups are reasonable	0.196	4	4.3	3.9	3.7	Difference among the means is not significant	Fail to reject null hypothesis	All income levels finds health checkups rates to be reasonable
9. Diagnostic labs results operated by	0.863	4.3	3.9	4.07	4.05	Difference among the means	Fail to reject null hypothesis	All income levels find health results

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startups are reliable						is not significant		to be reliable
10 Startups offers Provision for	0.442	4	4.3	4.11	3.9	Difference among the means isnot	Fail to reject null hypothesis	All income levels find startups offer provision for
blood bank						significant		blood bank
11.Startups offers reliable health insurance	0.857	4.1	4.33	4.2	4.1	Difference among the means is not significant	Fail to reject null hypothesis	All income levels find reliable insurance offered by startups
12 Startup offers Health	0.045	3.8	4.5	3.9	4	Difference among the means is significant	Reject null hypothesis	Income greater than 25 lacs find lower health awareness by
13.Startup offers apps/website to book quick appointment	0.003	3.2	4.4	3.8	4.3	Difference among the means is significant	Reject null hypothesis	Income less than 15 lacs find startups offers quick appointment with physician
14.Startups offers delivery of healthcare products at home	.005	3.2	4.8	3.8	4.3	Difference among the means is significant	Reject null hypothesis	Income less than 15 lacs find startups offers healthcare products at home

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	.048	3.4	4.7	3.8	4.2	Difference	Reject null	Income less
						among	hypothesis	than 15 lacs
15. Startups						the means		find startups
offers low-cost						is		offers low-
Surgery						significant		cost salary
16. The services	0.078	3.5	4	3.9	4.5	Difference	Fail to reject	Income less
offered by						among	null	than 15 lacs
startups is						the means	hypothesis	find startups
affordable,						is not		offers reliable,
reliable and						significant		affordable
transparent								services
than								
convectional								
healthcare								
business								

#### **HYPOTHESIS Ho3**

There is no significant difference between physician's experience in relation of using healthcare services offered by startups.

Result: Significant difference was found in the satisfaction towards Physician experience in relation of healthcare services offered by startups, with significance level of 0.044, rejecting the null hypothesis and stating that physician' experience affected satisfaction level while using healthcare services offered by startups.

	ANOVA test result Summary							
Dependent	Factor	Significance level	Hypothesis result	Summary				
Satisfaction	Physician years of experience	.054	Fail to reject null hypothesis	Differences among the means are not significant.				

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X1	N	Mean	StDev	95% CI
10-20 years	85	4.4462	0.6622	(4.2928, 4.5996)
Less than 10 years	175	4.2788	0.6303	(4.1576, 4.4001)
More than 20 years	65	4.5385	0.5547	(4.3404, 4.7365)

 $Pooled\ StDev = 0.627295$ 

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
X1	2	2.328	1.1639	2.96	0.054
Error	205	80.667	0.3935		
Total	207	82.995			

Services offered by	P	Mean			Result	Hypothesis	Inference
startups	Value	<10	10-	>20			
		years	20	years			
			years				
	0.905	4.5	4.6	4.6	Difference	Fail to reject	Physician at all
					among	null	experience find
					the means	hypothesis	patients able to
Patient is able to					is not		book online
book an online					significant		appointment
appointment with							using startups
the physician							services
Patient can provide	0.88	4.5	4.4	4.6	Difference	Fail to reject	Physician at all
physician feedback					among	null	experience find
through online app					the means	hypothesis	patients can
					is not		provide feedback
					significant		using startups
							apps

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Patient is able to	0.937	4.2	4.4	4.33	Difference	Fail to reject	Physician at all
book ambulance					among	null	experience level
using online					the means	hypothesis	find patients can
services					is not		book ambulances
					significant		using startups
							apps
	0.947	4	4.2	4	Difference	Fail to reject	Physician at all
					among	null	experience level
Patient is able to					the means	hypothesis	find patient able
reach hospital using					is not		to reach hospital
navigation/cab					significant		on time using
service							startups services
Patient is able to	0.565	4.2	4.6	4.25	Difference	Fail to reject	Physician at all
order basic					among	null	experience level
healthcare					the means	hypothesis	finds patient able
devices/Medicines					is not		to order medicine
at home					significant		at home using
							startups
							apps/portals
	0.642	4.25	4.6	4.33	Difference	Fail to reject	Physician at all
					among	null	experience level
					the means	hypothesis	find patient can
Patient is able to					is not		connect to
connect to					significant		physician in
hospital/physician							emergency using
in emergency							startup services
	0.2	3.8	4.6	4.3	Difference	Fail to reject	Physician at all
					among	null	experience levels
Physician is able to					the means	hypothesis	able to build
build his brand					is not		brand using
using online					significant		online platform
platform							offered by startup
Physician is able to	0.695	4.3	4.6	4.6	Difference	Fail to reject	Physician at all
provide					among	null	experience level
health/disease					the means	hypothesis	able to provide
awareness using					is not		health/disease

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online	јеропшек				significant		awareness using
platforms/apps					8		startups' s online
r , r							platform
							apps/portal
Physician is able to	0.88	4.5	4.4	4.6	Difference	Fail to reject	Physician at all
generate enough	0.00	4.0	4.4	4.0	among	null	experience level
patient workflow					the means	hypothesis	able to get
with availability					is not	nypotnesis	enough patients
over online					significant		using startups
platforms					Significant		online platforms
piatiornis	0.005	4.5	1.6	4.6	Difference	Fail to reject	Physician at all
	0.905	4.5	4.6	4.0		null	
					among the means	hypothesis	experience level
East of marmant						hypothesis	find payment
Ease of payment					is not		collection is easy
collection from					significant		using digital apps
patient using digital							offered by
apps				_	_ 100		startups
	0.225	3.8	4.2	4.6	Difference	Fail to reject	Physician at all
Physician is able to					among	null	experience level
receive training at					the means	hypothesis	able to receive
conferences, online					is not		online trainings
training					significant		
	0.604	4.25	4.2	4.66	Difference	Fail to reject	Physician at all
Physician is able to					among	null	experience levels
receive video					the means	hypothesis	able to receive
recordings of					is not		video recordings
training					significant		of trainings
	0.836	4.5	4.4	4.66	Difference	Fail to reject	Physician at all
Physician is able to					among	null	experience level
share the knowledge					the means	hypothesis	can share the
using online					is not		knowledge using
platform					significant		online platforms

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**HYPOTHESIS H04** 

# There is no significant difference between physician's practice location (rural vs urban) in relation of using healthcare services offered by startups.

Result: Significant difference was found in the satisfaction of Physician using services offered by healthcare startups with respect to Physician location Rural or Urban, with significance level of 0.001, rejecting the null hypothesis.

	t-test result Summary							
Dependent	Factor	Significance level	Hypothesis result	Summary				
Satisfaction	Urban, Rural	0.001	Reject null hypothesis	There is significant difference in the satisfaction for Physician location in using healthcare services offered by startups.				

### **Descriptive Statistics**

Sample	N	Mean	StDev	SE
				Mean
Urban_1	250	4.654	0.524	0.046
Rural1	75	4.000	0.581	0.066

#### Test

Nι	ıll hypo	$H_0: \mu_1$	$-\mu_2 = 0$					
Alternati	ve hypo	thesis	$H_1:\mu_1$	- μ <sub>2</sub>				
				≠ O				
T-Value	DF		P-V	'alue				
8.15	149		0.	.000				

Services offered by	P	Mean		Result	Hypothesis	
startups	Value	Urban	Rural			
Patient is able to	.014	4.8	4.16	Difference	Reject null	Physician in
book an online				among the	hypothesis	Urbans finds
appointment with				means is		patients able to
the physician				significant		book online

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			<u> </u>			
						appointment with
						ease than in rural
Patient can provide	.001	4.9	3.33	Difference	Reject null	Physician in
physician feedback				among the	hypothesis	Urbans finds
through online app				means is		patients able to
				significant		provide feedback
						online ease than
						in rural
Patient is able to	0.138	4.5	4	Difference	Fail to	Physician in
book ambulance				among the	reject null	Urbans and rural
using online services				means is	hypothesis	finds patients able
				not		to book
				significant		ambulance using
						online services
	.017	4.5	3.3	Difference	Reject null	Physician in
Patient is able to				among the	hypothesis	Urbans finds
reach hospital using				means is		patients able to
navigation/cab				significant		reach hospital
service						than in rural
Patient is able to	.001	4.8	3.8	Difference	Reject null	Physician in
order basic				among the	hypothesis	Urbans finds
healthcare				means is		patients able to
devices/Medicines at				significant		order medicines at
home						home using online
						portal than at
						rural
	.016	4.6	3.8	Difference	Reject null	Physician in
				among the	hypothesis	Urbans finds
				means is		patients able to
Patient is able to				significant		provide connect to
connect to						hospital/physician
hospital/physician in						than in rural using
emergency						startups services
Physician is able to	.061	4.4	3.8	Difference	Fail to	Physician in
build his brand using				among the	reject null	Urbans and rural
online platform				means is	hypothesis	able to build

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				significant		startups services
Physician is able to	.001	4.8	3.8	Difference	Reject null	Physician in
provide				among the	hypothesis	Urban able to
health/disease				means is		provide health
awareness using				significant		awareness using
online						startup services
platforms/apps						than in rural
	.001	4.9	3.8	Difference	Reject null	Physician in
Physician is able to				among the	hypothesis	Urban able to
generate enough				means is		generate enough
patient workflow				significant		workflow using
with availability over						online platform
online platforms						than in rural
	.014	4.8	4.16	Difference	Reject null	Physician in
Ease of payment				among the	hypothesis	Urban able to
collection from				means is		collect payment
patient using digital				significant		using digital apps
apps						than in rural
	0.496	4.6	4.3	Difference	Fail to	Physician in
Physician is able to				among the	reject null	Urban and rural
receive training at				means is	hypothesis	able to receive
conferences, online				not		online training
training				significant		
	0.610	4.4	4.1	Difference	Fail to	Physician in
Physician is able to				among the	reject null	Urban and rural
receive video				means is	hypothesis	able to receive
recordings of				not		video recordings
training				significant		of trainings
	1.00	4.5	4.5	Difference	Fail to	Physician in
Physician is able to				among the	reject null	Urban and rural
share the knowledge				means is	hypothesis	able to share
using online				not		knowledge using
platform				significant		online platform

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Conclusion

Significant percentage of patients and Physicians use services offered by startups such as online

appointment of Physician, availability of ambulance and physician in emergency, collect online payment using digital apps, use navigation or transportation services to reach hospital on time.

No significant difference observed in relation to gender when patient uses services offered by

startups, however some of the males find easy to book online appointment with physician, order

medicine online. Male finds startups to be more reliable, affordable than female. Males use

more apps/online portal to order medicine at home than female.

Overall Significant difference observed in relation to patient's income while using services

offered by startups. Patients with income level less than 15 lacs are satisfied with online order of

medicines, low-cost surgery and quick appointment with physician offered by startups.

Overall, no significant difference observed in relation to physician's experience level (less than

10 years, 10-20 years and greater than 20 years) of services offered by startups such as online

appointment booking, connecting with physician in emergency, able to reach hospital on time,

able to get ambulance on time at home. Physician at all experience levels strongly agree with

startups providing brand building, online trainings and video recordings, sharing knowledge

using online platforms.

Significant difference observed with physician's satisfaction of using startups services in relation

to Physician location rural or urban. Physician practicing in Urban agree more than Physician in

rural to startups services such as online appointment by patient, patient getting ambulance on

time, patient can order medicine online, patient can provide feedback online. Physician in urban

and rural both equally agree to startups services such as Physician brand building, online

trainings and knowledge sharing.

Limitations

Since the study is based on a small geographical area, it has limited generalizability but offers

good insights about how Physician and Patients agree to use of services offered by startups.

Future research may concentrate on psychographic segmentation of patients and physicians in

terms of evaluating their usage of various startups services. To get more insights into patient

behavior and to learn more about startup trends, the research can be done on a larger scale.

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Retrieved from https://ijeponline.com/index.php/journal

#### References

Hisrich, R. D., Peters, M. P., Shepherd, D. A., & Shepherd, D. A. (2008). Entrepreneurship. New York: McGraw-Hill.

Schiavone, F., Rivieccio, G., Paolone, F. and Rocca, A. (2021), "The macro-level determinants of user entrepreneurship in healthcare: an explorative cross-country analysis", Management

Decision, Vol. 59 No. 5, pp. 1158-1178. https://doi.org/10.1108/MD-10-2019-1427

Mr.E.Manikandan,&Dr.C. Sengottuvel. (2021). A Study of Social Entrepreneurship in India -

Opportunities and Challenges. Texas Journal of Engineering and Technology, 1(1), 10-16.

Retrieved from https://zienjournals.com/index.php/tjet/article/view/48

Popkova, E.G. and Sergi, B.S. (2020), "Social entrepreneurship in Russia and Asia: further development trends and prospects", On the Horizon, Vol. 28 No. 1, pp. 9-21.

https://doi.org/10.1108/OTH-09-2019-0065

Sabrina Korreck, "The Indian Startup Ecosystem: Drivers, Challenges and Pillars of Support",

ORF Occasional Paper No. 210, September 2019, Observer Research Foundation.

Satish Nambisan, Mike Wright, Maryann Feldman. The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes, Research Policy,. Volume 48, Issue 8, 2019, 103773, ISSN 0048-7333, https://doi.org/10.1016/j.respol.2019.03.018

John, Sakhi (2018). Assessing and developing a health management information system for effective delivery an empirical study from Indian public healthcare system.

http://hdl.handle.net/10603/218343

Nishant (2020). Microentrepreneurship through microfinance A study of Haryana.

http://hdl.handle.net/10603/341174

Sharma, Sushil Kumar (2018). Patients perception towards selection and satisfaction regarding super speciality heart hospitals in India.

https://www.elsevier.com/connect/healthcare-professionals/ensuring-a-post-covid-advanced-healthcare-system-in-india

https://crossbarriers.org/how-social-entrepreneurship-is-a-game-changer-in-indian-healthcare-sector/

https://www.ideasforindia.in/topics/macroeconomics/what-lies-ahead-the-role-of-entrepreneurship-in-indias-rising-public-health-sector.html

https://www.sciencedirect.com/science/article/abs/pii/So277953608000622?via%3Dihubwardedirect.com/sciencedirect.com/science/article/abs/pii/So277953608000622?via%3Dihubwardedirect.com/sciencedirect.com/science/article/abs/pii/So277953608000622?via%3Dihubwardedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedirect.com/sciencedir

https://healthcaremba.gwu.edu/blog/entrepreneurship-in-healthcare/

https://healthcaremba.gwu.edu/blog/healthcare-entrepreneurship-at-the-speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light/speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-light-speed-of-

https://healthcaremba.gwu.edu/blog/entrepreneur-opportunities-in-healthcare/

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International Journal of Economic Perspectives, 17(03) 99-119

Retrieved from https://ijeponline.com/index.php/journal

https://www.sciencedirect.com/science/article/pii/S2211883721000034?via%3Dihub

https://nasscom.in/knowledge-center/publications/healthtech-india-are-we-there-yet

https://tealfeed.com/dynamics-healthcare-entrepreneurship-india-1e2f1

https://timesofindia.indiatimes.com/business/international-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-business/why-social-busin

entrepreneurship-is-the-need-of-the-hour-during-covid-

19/articleshow/76296764.cms?utm\_source=contentofinterest&utm\_medium=text&utm\_camp aign=cppst

https://www.startupindia.gov.in/

https://www.worldometers.info/world-population/india-

population/#:~:text=The%20current%20population%20of%20India,the%20latest%20United%20Nations%20data.

https://www.business-standard.com/article/current-affairs/india-to-have-1-billion-smartphone-users-by-2026-deloitte-report-122022200996\_1.html