

The University of Queensland - IIT Delhi Academy of Research (UQIDAR)

Joint PhD Project Proposal Template

1. Project details

Project title **Exploring the potential of Health Tech Start-ups in India: A Critical Success Factors Framework**

Project ID **UQIDAR-00156**

2. Supervision team

Please visit the IITD website www.iitd.ac.in and UQ website <http://researchers.uq.edu.au/> to highlight potential collaborators that would be best suited for the proposed project. Complete where possible – advise if you’d like assistance establishing contacts.

	University of Queensland	IIT Delhi	External/Industry (if applicable)
Supervisor name and title	<i>Dr Sisira Edirippulige</i>	<i>Prof Vigneswara Ilavarasan</i>	
School or department (or company, if applicable)	<i>Centre for Online Health/Centre for Health Services Research</i>	<i>Department of Management Studies</i>	
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3. Other supervisors

Please provide information about other associate supervisors below.

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2. Field Of Research (FOR) codes

Specify up to four four-digit FOR codes for your project – see [here](#) for more detail on FOR codes.

1 0806	3 1503
2 1117	4. 1605

3. Keywords

Please choose up to 4 keywords for your project. E.g. Nanotechnology, data science, novel batteries, etc. Keywords will assist in classifying project and presenting projects to students on the applications portal.

1 Health	3 Business
2 Information and communication technology	4. Start-ups

4. Discipline background of candidate

Please outline the preferred background of your student. E.g. Organic chemistry, physiology, topology, CFD, etc. This will assist in presenting projects to applicants on the apps portal.

5. Project description

Rationale

Health Information Technology (IT) Start-ups have become a booming industry. The phenomenon is global having health IT Start-ups emerging almost in all countries around the world. India's health IT Start-up sector has made a significant impact on the economy. India's goal of reaching a \$1 trillion digital economic by 2022 has been fuelled by the growth health Start-ups in the country. The number of Internet users in India has grown to over 500million today. The growth of health Start-ups in India makes the country the world's third biggest start-up ecosystem behind the US and the UK.

With healthcare records moving online, and more people including doctors expecting mobile solutions it seem only natural that start-ups are emerging to help users visit the doctor remotely, track their medication regimes or get a diagnosis from a doctor at long distance. Trailblazing into the healthcare market place, health Start-ups are bridging the gap between healthcare and technology to build safer and more inclusive healthcare experience. This calls for studies to systematically investigate the trends and prospects of factors that determine the effectiveness and the success of these start-ups. This study aims to propose to develop a critical success factors (CSF) framework for the Health IT Start-ups creation, growth, and sustainability in India. This framework can then be used by entrepreneurs to assess the outcome quality and the growth and sustain a start-up in this area.

In summary, the proposed study aims to:

1. Propose a framework of CSFs for Health IT start-ups in India
2. Validation and refinement of the initial framework through key university and industry experts
3. Final validation of the framework with entrepreneurs
4. Final Framework proposal and dissemination

Methodology

Stage 1 (Literature Review and Initial Framework Proposal)

- Identify in the literature CSFs related to Small and Medium Enterprises (SMEs) and also start-ups creation, development and fostering.
- Proposal of an initial CSF Framework for Health IT Start-ups in India.

Stage 2 (Initial proposal validation with experts and framework refinement)

- Validation of the initial proposal through semi-structured interviews to university and industry experts in Entrepreneurship and Information Systems.
- Refinement of the initial framework as the result of the experts input.

Stage 3 (Final validation with Health IT start-ups entrepreneurs)

- A quantitative research, operationalized by an online questionnaire, will be conducted with entrepreneurs, to test the proposed acceptance theoretical model.

In addition to the above, a structural equation modelling will be used to analyse and validate the developed research model. All data will be assessed for goodness of fit and conformity to model assumptions which will determine the data analysis method. Methods proposed are either structural equation modelling or multivariate regression analysis.

Stage 4 (Final Framework Proposal)

- The study will identify the CSFs and propose a framework for the Health IT Start-ups creation, growth, and sustainability in India, based on the successive refinement phases described.
- Dissemination of the final framework through key players in India and abroad.

Measurement instruments

- Semi-structured interviews, with a qualitative analysis with NVivo, for example;
- Surveys, with various statistical analysis being conducted, including multivariate analysis and Structured Equation Modelling (SEM), through an appropriate SEM software.

Timeline

Data collection would involve 24 months (i.e. Stage 1= 6months; stages 2 and 3=16 months with 12 months required for data analysis and write up.

6. Project deliverables/outcomes

- Publications in refereed journals (minimum of 3 journal papers)
- Recommendations that needs to be followed by entrepreneurs in this area to assess the quality, create, grow and sustain a start-up

7. Research impact themes

Highlight the research impact theme(s) this project will address. Feel free to nominate more than one. For more information, see <http://www.uq.edu.au/research/impact>

1. Healthy Ageing
2. Feeding the World
3. Resilient Environment
4. **Technology for Tomorrow** ✓
5. **Transforming Societies** ✓

8. Type of student

This project is best suited for an:

i-student	<input checked="" type="checkbox"/>
a-student	<input type="checkbox"/>
i- or a-student	<input type="checkbox"/>

Please note that:

- an i-student will be expected to spend year-1 at IIT-D, year-2 at UQ and the remaining time at IIT-D.
- an a-student will spend year-1 at UQ, year-2 at IIT-D and the remaining time at UQ.
- All students will be required to complete some amount of coursework in their first year.

9. Student capabilities and qualifications

Essential capabilities:

- Experience with statistics
- Has carried out research (i.e., survey methodology)
- Able to use Microsoft Office
- Interest in IT business
- Strong interpersonal skills and ability to work with people in IT sector, management and research
- Interest in health and technology in health (i.e. digital health)
- Has the equivalent of Band 7 IELTS

Desirable capabilities:

- Organised

- Capacity to work independently and within a group
- Resourceful in terms of obtaining scales and information from India and globally

Expected qualifications (Courses, degrees, etc.):

- Relevant degree in IT, business, education, social sciences, or other appropriate degree with Honours; or a Masters degree with equivalent research components.