CHAPTER 4
THEORITICAL MODEL DEVELOPMENT

Based on the literature reviewed and information gathered through interactions with stakeholders concerned, a number of ‘incubation environment influencers’ contributing to development of a start-up venture were enumerated. It was found that a majority of the models were developed using the local environmental factors prevailing in USA and Europe where ‘Business Incubation’ is well established. In order to develop a model relevant to Indian BI environment, which is relatively young, it was essential to choose a suitable model that encompasses factors closely relating to the study. One such model is Smilor’s business incubation model. Smilor’s effort is perhaps the most comprehensive effort at identifying and explaining the various components of the incubation system (Hackett & Dilts 2004).

4.1 SMILOR’S BUSINESS INCUBATION MODEL

Smilor’s incubation model (Figure 6.1) presents a holistic view of the business incubation program, its stakeholders, its services and the outcomes (success metrics) connected to incubatee firms (Smilor 1987 b).

As start-ups are vulnerable to risks and failure, the mortality rate during the venture formation stage is very high. Business incubators provide crucial support to start-ups and help them mitigate risks. In order to measure the successful outcome of an incubation exercise, there have been several qualifiers identified by researchers and business incubation experts.
The success in the market place (acceptance of products and ability to generate revenue), financial success (profits/viability) of the venture and recording consistent growth (diversification/job creation) are some of factors that seem to be dominant among all the factors in this model.

4.2 THEORITICAL MODEL DEVELOPMENT

As the scope of this study was confined only to the micro environment of BIs, the macro environment outcome depicted in Smilor’s model, the ‘Economic development’ was omitted. The support system mentioned in Smilor’s model has evolved further over the last 3 decades. Two other models (Lalkaka 2003; Suresh Kumar & Sudharani 2012) provided sufficient insights to consider mentoring, financial support, technology support as influencers of success in the incubation environment. In addition, using factors seen from the literature review and the key influencers contributing were mapped as basic building blocks of ‘Incubation offering’.

Figure 4.1 Business incubation model-Smilor's framework (Smilor 1987)
Hence, the proposed model took the following major incubation environment influencers into account under the ‘Incubation offering’:

i. **Access to infrastructure**

This covers access to technology development and validation facilities, apart from secretarial and administrative infrastructure. Availability of relevant facilities, ease and cost of access are the factors affecting this infrastructure influencer.

ii. **Access to talent**

This covers facilitating hiring of full time talent, part time employees and project staff. For academia based incubators, the campus talent pool and relevant skills affect this talent influencer. Moreover, BI network’s role in hiring facilitation too is relevant to talent access.

iii. **Access to legal/IPR support**

Legal support and access to intellectual property protection, availability of such service providers in BI network, cost and ease of access are the factors affecting legal/IPR access influencer.

iv. **Access to mentoring**

Mentoring by incubator team, from its network, ease of access to mentoring and cost of access are the factors affecting mentoring influencer. Availability of mentoring both in technology and business domains is relevant too.
v. **Access to market**

BIs ability to attract industries, its reputation and availability a favourable industrial ecosystem are the factors affecting this access to market influencer.

vi. **Access to finance**

Facilitation to raise grants from Government and non-Governmental agencies, availability of seed funding from the BI, access to angel and VC investors are the factors affecting this access to finance influencer.

As this study postulated a new concept of bringing OI into the incubation offerings, an attempt was made to embed this element into the BI offering. OI linkages were positioned by way of introducing business networks for enhancing the incubation offering. Thus an ‘Open innovation’ linkage is introduced in the BI services. The resulting comprehensive BI services would get augmented and help incubatee start-up ventures to overcome various risks and barriers.

As the incubation environment influencers help incubatee ventures to overcome the risks and become successful, there is a need to map the Incubation outcomes along with the offerings. Thus incubated start-ups would be in an advantaged position to achieve their technology / product goals, team goals, market goals and finance goals and become successful.

Figure 4.2 depicts a theoretical model constructed by embedding the OI linkages.
Figure 4.2 Embedded OI in BI process