CHAPTER 4
THEORETICAL FRAMEWORK

The theoretical framework of the study forms the structure that support the theory of a research work. The theoretical framework provides guidance in determining what things to measure and what statistical relationships should be analyzed in a research. Theories are constructed in order to explain, predict, and analyze relationships between variables of interest in the study. The theoretical framework provides a general representation of relationships between variables under study. The conceptual framework, on the other hand, embodies the specific direction by which the research will have to be undertaken. The framework describes the relationship between the specific variables identified in the study.

Bliss et al (1983) suggested that the development of a theoretical framework should assist the researcher by two ways:

- Gives a broad scope to thinking about the research and conceptualizing the problem.

- Provides a means to link ideas and data so that deeper connections can be revealed.

The literature survey on the incubator performance framework and model revealed an input – output framework (Lalkaka 2003) for the incubator performance as mentioned in the Figure 4.1.
The business incubator performance framework is discussed in an input-output process model. The advantages of the input – output process model are the allocation, management and control of the resources, interactions between these resources and the interfaces between the functional hierarchies of the organization. In the business incubator model mentioned in Figure 4.1, the inputs are the finance for starting an incubator, objectives of the stakeholders, the skills of the management and the projects of the prospective incubatee. Apart from the physical space, the training provided to the incubatees, business advice, financial support to the incubatee, technology support to the incubatee and the networking support extended to the incubatee are considered as the process in the incubator. The incubatee graduating from the incubator resulting in job and/or wealth creation after receiving all the
support from incubator is considered as the output from the business incubator. The model shown in Figure 4.1 classifies the following best practices:

- **Efficiency** – the relationship between financial inputs for the incubator and outcomes from the incubator.
- **Effectiveness** – the extent to which the outcomes demonstrate that specific objectives are being achieved.
- **Relevance** – the extent to which objectives/outcomes promote broader policy objectives
- **Utility** – the extent to which services provided to client companies meet their needs.
- **Sustainability** – the sustainability of operations and durability of the outcomes being achieved.

The above model covers comprehensively the resources involved, the services provided, and the functions of an incubator and the desired outcome of an incubator.

Ghasemizad et al (2011) considered the external organizational factors, intra organizational factors, organizational procedures, entrepreneurship behaviour as the factors that influence the technology business incubator’s effectiveness and developed a model as shown in Figure 4.2.

The study reveals that if an incubator is established in an environment prevailed by innovation and interaction with industries and
having access to rich resources of experienced and innovative entrepreneurs and management teams, it would achieve more success than those deprived of those facilities.

The regression coefficient values between the factors mentions the importance of organizational procedures and entrepreneurship behaviour in the technology incubators’ effectiveness. The value specifies that the organizational procedures showed more mediation for incubators’ effectiveness. This implies that the incubator that establishes flexible procedures and with clear terms increases the effectiveness of the incubator.

![Figure 4.2 Framework for the Effectiveness of TBIs](image)

The study denotes that the extra-organizational factors – government, university, industries and the stakeholders of entrepreneurial ecosystem have direct impact on the effectiveness of the incubators.

The effectiveness of services provided by a business incubator is the basis for promoting the incubator and for incubating and developing new ventures inside. From the Figure 4.3, it is observed that the services in different forms, contents, and levels may influence the performance of incubated firms such as surviving rate and growth rate (Wang et al 2008).
The model classifies the studies into four categories as infrastructure, educating, business services, networking and defines the performance of the incubatee on survival rate and growth rate.

The study pointed out that the infrastructure services are the base for the functioning of incubator and start-up. The educating services enable the start-ups to develop certain capabilities and also change the mindset of the entrepreneur. The business services help the operations and processes of the start-ups. The networking support by the incubator helps the incubatee to acquire peer support from other incubatees and also to access the services from the external environment which are not available with the incubator.

![Figure 4.3 Influence of Services in the Performance of Incubator](image)

4.1 THEORETICAL FRAMEWORK FOR INCUBATOR PERFORMANCE

Based on the above two models, the study involved in developing a model, as shown in Figure 4.4, which describes the factors influencing the performance of the incubators. The overall operations of the business incubator can be classified as facilities, services, and operations and these three will cover the physical space, equipments, support services, funding
support, selection process, incubation program, graduation criteria, mentoring, networking, and incubation governance. The performance of an incubator is measured based on the success rate of the graduated incubatees, the average number of incubatees per 1000 sq.ft of space, occupancy level, and sustainability of the incubator.

![Figure 4.4 Theoretical Framework for Incubator Performance](image-url)