CHAPTER 5

STUDYING THE PROCESS OF INSTITUTION BUILDING:
CONCEPTUAL FRAMEWORK

The twentieth century will be remembered for the emergence of a variety of new institutions at all levels. It is always necessary to have the knowhow by which it can be understood how institutions can be created and how they can be integrated into the social fabric. On the other hand the social fabric itself is irreversibly changed as a result of the institutionalisation of new values and technologies. Thus the success or failure of institutions is crucial for the survival of the society. Hence, a study on institution building is of prime importance (Ganesh, 1976).

"Institution building is an act of faith". This is truer in the case of an educational institution. In the context of institution building, a distinction between organisation and institution has been made by the "Galanisk" (1967) theory. An organisation is both a system of consciously coordinated activities and a rational instrument engineered to do a job; an institution is a responsive, adoptive organisation which is the natural product of social needs and pressures. An organisation is an artificially created system which strives to maximise efficiency and management hence it continues to be outside the culture and the society in which it functions. An institution, on the other hand, is part of the large system of the community or
the society, although it is a forward looking, adoptive and proactive part of the community.

Selznick provides a distinction between organisations and institutions while accepting an "Organisational" definition. "In what is perhaps its most significant meaning, to institutionalise is to infuse with value beyond the technical requirements of the task at hand. The prizing of social machinery beyond its technical role is largely a reflection of the unique way in which it fulfills personal or group needs, whether individuals become attached to an organisation or a way of doing things as persons rather than as technicians, the result is a prizing of the device for its own sake. From the standpoint of the committed person, the organisation is changed from an expendable tool into a valued source of personal satisfaction."

Ganesh (1976) differentiates between an organisation & institution by providing two models of institution building, evolutionary and engineering models. "Slow incremental changes that take place as a result of social interaction" correspond to the Evolutionary model. This model emphasises norms and behaviour; it de-emphasises structure and organisation. The concept of institutionalisation is incorporated in this model. In the engineering model, however, the emphasis is more on the integration of the organisation with its environment. It is conceptualising institutionality as the end-state of Institution Building efforts.
I.B. Model

The present study used a model having three concepts, namely context, performance and mechanisms. It is given in Fig. 5.1. The model refers to women's polytechnics.

Fig. 5.1 Institution Building Model

In education institutes, the context is common. The performance is influenced by processes and mechanisms. The three sets of mechanisms corresponding to system survival, system effectiveness, and diffusion of innovations were used. Three women's polytechnics were chosen from the western region, one from each state. They are as follows:

1) S.K. Somani Polytechnic, Bombay.
2) Government Polytechnic For Girls, Ahmedabad.
3) Government Women's Polytechnic, Bhopal.

CONTEXT

Contextual variables are regarded as the setting on which organisation structures are developed. They can be considered as idea origination history, ownership and control,
size, charter, technology, location, resources and dependance. Ganesh (1973) has considered two variables of context for the study of six management institutes, namely strategy and environment. The present study will incorporate the following components:

1) idea and history
2) resources & dependance
3) institutional form and strategy
4) location
5) environment.

1) IDEA AND HISTORY

The historical idea behind the creation of the institution source and other related aspects is narrated.

2) RESOURCES & DEPENDANCE

This will include the people who had supported or resisted the institute in its early stages.

3) INSTITUTIONAL FORM & STRATEGY

An institute is set up with certain specific goals, which will affect the institution's future.

4) LOCATION

The location of an institution plays a vital role for social economic and industrial conditions vary from one place to another.

5) ENVIRONMENT

The institutions are product of some movement pressure etc.
PERFORMANCE

Performance is a role related concept and should be measured along the dimensions - potential development, effectiveness and future capability.

Polytechnics are production agencies within the programmes, set up to achieve national objectives in the field of higher education. It is difficult to analyse such non-profit institutions, unlike a profit making organisation, where resource acquisition will also be considered as one of the component of performance. They are categorised in three components.

1) POTENTIAL DEVELOPMENT

Potential development is an important aspect for an institution. It cannot provide service without staff, funds, facilities, campus, library and a computer centre. The capability development can be obtained by investing in 1) Human capital (2) Physical facilities and (3) obtaining economic resources.

1) Investment in Human capital

It includes faculty members, visiting faculty, administrative staff and supporting staff. The staff is the key factor in generating polytechnic performance. High quality academic staff is the base for attracting good quality students and generating good courses. Academic staff requires support from administrators. Academic staff and administrative staff, along with students, set the culture of the institution. Hence the recruitment of the staff is a very important phenomenon, followed by the training to the existing staff.
As time passes, knowledge becomes outdated, skills lose their edge, the intellectual and experience of staff depreciates. Irrelevance of outdated experience, lack of updating of research will lead to low calibre of academic staff. This will adversely affect the performance of the institution.

Administrative staff and technically qualified supporting staff are also important for a technical institution for, without their support, the academic staff will find it impossible to deliver the goods. If the administrative and supporting staff have poor capabilities, they are likely to reduce the image of institution among students, staff, industry, examination bodies etc. This may lead to industrial disputes, student unrest and a fall in the institution performance. We further divide this as follows:

1) Planning for staff
2) Training programme
3) Staff selection policy

The effectiveness of development effort can be assessed by the following results in an institution.

a) ratio of total number promoted to those regarded as promotable over any given period,
b) proportion of staff whose performance is assessed as deteriorating unchanged or improving.

Of course, the above measures would require the development of fairly sophisticated performance appraisal schemes comprising target, feedback and creation of a control climate.
2) Investment in facilities

Development of physical facilities is a critical factor for the growth of an organisation. Campus creation, library, computer centre, classrooms, laboratories and studios are the bare minimum requirements for an institution in today's world. It can be analyzed with the help of the following components.

1) Planning for physical facilities
2) Space requirement
3) Library facilities
4) Reprographic facilities
5) Audio-visual hardware & software
6) Equipment and laboratories
7) Development of computer centre
8) Campus development
9) Upkeep of existing facilities.

The context of the long range development plan will dictate the space requirements. These plans are going to be modified due to environment. Hence space planning must incorporate a good amount of flexibility. Apart from flexibility in use, space development should also have financial flexibility. Renting alternatives that permit shedding options are important in the beginning of the institution as they provide cushions when the building programme is being implemented.

Library facilities with study space are important for role performance. Computer facilities is one area of learning and research which is a left out facility, since a long time
in polytechnics. Institutions should not go in for the biggest and best model, but opt for a cheaper model, as this will be required for teaching and research purposes only. This facility can be shared with other organisations.

Audio-visual technology is now integrated with the teaching methods. To enhance learning motivation, rapid feedback and individual pacing are two important components, which can be achieved by A.V. aids. Cost reduction in A.V. aids and staff time planning are the different issues which demand an in-depth study.

Facility development is a time consuming and expensive affair. Hence its educational, technical and financial justifications are crucial.

3) Financial resources

Education is a sector which is always facing a shortage of resources. Hence to get the value for money, cost effectiveness assumes critical importance. The money comes from fees, borrowing, charges, grants and donations to institution and it is therefore liable to public scrutiny. At the time of failure in the area of cost effectiveness and efficiency of resource utilisation, it becomes difficult for the institution to get approvals for academic and building programs. If financial resources can be developed, other favourable developments will follow like recruiting better staff, designing better courses, providing more facilities and support services. The institution will become more effective in its roles. The cost effectiveness can be worked out on the basis
of the following criteria:

1) Cost analysis
2) Efficiency of resource utilisation
3) Resource planning

Most of the developed and developing countries have set national norms and designs to ensure a minimum level of efficiency in resource usage. As a matter of fact, they do not provide incentives for enhancing efficiency beyond the threshold. The variances considered are as follows:

1. Staff student ratio
2. Teaching hours
3. Student hours
4. Class size
5. Contact time
6. Average cost per staff
7. Average cost per student

Deviations from norms and changes in ratios can then be further analysed. Operational efficiency can be achieved by time tabling and designing courses in such a way that:

a) accommodation is loaded evenly throughout the day and academic year and
b) staff are time tabled in such a manner that their teaching is concentrated in blocks, leaving substantial time for research activities which are critical for success.

Any saving on planned expenditure must be allowed to carryforward and invest in future capability so that incentives may exist.
EFFECTIVENESS

Effectiveness is the output measurement of the institution. The output in education can be measured in terms of learning, gain and impact on society. The efficiency of an effective institution can be measured by knowing outputs and inputs. Ganesh had considered innovative thrust and penetration as two performance dimensions of institution effectiveness. A broad analysis of effectiveness can be done by the following components.

1. Programmes
2. Product management
3. Management vs employees

1) Programmes

The product is offered by an educational institution through the programmes. Hence, programme planning is as significant in education as in commercial houses. Poorly planned programmes or courses will generate frustration among the staff and students. It always takes a long time to build up a reputation, but it can be destroyed quite fast by badly designed programmes.

Three types of performance indicators are of relevance for course development.

1) System analysis and design

A set of indicators for system analysis can be devised as

a) clarity of aims and target

b) explicitness and validation of objectives
a) internal logic of the system for achieving objectives
b) congruence between objectives and assessment
c) course management structure
d) resource utilisation

2) Implementation Reactions

Programme development is a continuous process. Feedback from students, staff and industry provides the opportunity to identify planning weaknesses. This will prove an asset for updating the courses.

3) Product Leadership

Product leadership can be defined as the ability of the institute to apply the most advanced concepts in teaching method, system design and course promotion to the development of new courses.

Every programme has to pass four stages i.e. academic planning, course implementation, course evaluation and research/innovations.

2) PRODUCT MANAGEMENT

The product of an educational institution is nothing but the students. It is a debatable point whether students are to be considered as products or clients. Students are more than mere clients. They are the part of input set in classroom situations and influence the learning process. They are the members of an educational community within the polytechnic having a culture of the that society. One of the indicators for the effectiveness of an institution is the
social and cultural life of the students. For this, cultivation of good relations with the students is necessary. This can be done by:

1. Students participation in decision-making
2. Forming procedure for redressal of grievances
3. Enforcement of student discipline
4. Guidance and student counselling provision
5. Encouraging positive student attitudes
6. Student amenities planning

Relevance of courses to job opportunities helps in the development of positive attitudes among the students. Measurement of student relationships in an institution is a difficult job; however, certain events like student complaints and anti-polytechnic demonstrations are some indicators. It is necessary to create an environment that minimises the incidence of grievances.

3) Management vs employees

A low level relationship with employees will undermine efficiency, lead to student unrest and spoil corporate reputation. All these factors will have an adverse effect. Disputes between the management and employees are normally due to conflicting ideologies, attitudes, a sense of injustice, low motivational levels, unfair conditions of service and stress and strains in the job situations. These factors operate with varying intensity at all times. They upset established social arrangements for doing work. They threaten an individual's sense of security, self esteem, motivation, and create conflict and resistance. To manage the social
change strategy like low threat atmospheres, high motivation resolution of conflicts and growing commitment will be the result of management employees relation. Participatory methods are the best strategy for creating positive attitudes among employees and improving the quality of decision making. It will also test the sincerity of management. However, participation will not always be able to solve all the problems as it is a game of win and lose. The key performance measurement for employee relations is the frequency of resistance to change and the frequency of deadlocking. Some of the steps to overcome these shortcomings can be thought out as:

1. Boosting up motivation and morale
2. Participation of employees in decision making
3. Procedure for resolution of conflicts and redressal of grievances
4. Relationship with employees/ unions etc.
5. Encouragement of positive attitudes
6. Welfare schemes for employees

3) FUTURE CAPABILITIES

The third dimension of institutional performance is the future capabilities of the institution. A decaying institute need not bother about this; however, it is of great importance to an institute that seeks to survive and grow. People will always expect to benefit through association with the institution. The development of this kind of faith will depend upon the investments in facilities, human assets, research etc. The three main aspects of future capabilities can be considered
1) Social awareness
2) Corporate image
3) Public responsibility

1) Social Awareness

Educational institutions promote national objectives. These institutions receive grants from public funds. In a democracy, governments allocate these grants with a view to winning votes. This means that various pressure groups and existing social values play a vital role. Financial evaluations and output measurements are done by civil servants. Since resource allocation is always in the hands of politicians, an economically rational process may not operate in the distribution of resources. After the allocation of funds the institute's growth will depend upon how well it responds to social needs through its courses. This can be seen by the economic efficiency, quality of academic and administrative staff and the corporate image of the institution. A defaulting institute will find itself on the road to stagnation.

Hence an institute should develop the indices like

1. Share of each national programme percentage wise
2. List of national objectives for which no courses are existing
3. Other projects contributing to national programme objectives

Apart from responding to events in the environment, the institute should attempt to mould the environment by taking
an active part in the national decision making process. This can be done through projects, membership of government commissions, committees, pressure groups etc.

The third dimension of social tuning will be the flexibility of the learning environment available in an institution. The number of flexible courses and programmes to meet the suitable needs are its possible indicators.

Lastly, the information system of the institute will play a crucial role. The information received by the institution is relevant to ensure that the institute is socially tuned. Effectiveness will depend upon the process of collection of information, decisions taken on this and the feedback given to clients.

Social awareness can be categorised into three main components.
1. Market sensitivity and responsiveness to client needs
2. Concern for under-privileged students
3. Proactive role played by the institute

2) Corporate Image

It is difficult to measure the corporate image of an institution. However, this can be seen through the achievements of its members and the frequency by which these achievements are disseminated to the outside world. A good reputation attracts good staff, which contributes to good performance which in turn enhances reputation. The same cycle takes place in the decaying institution. The most significant facets of the corporate image are:
a) Academic and professional standing
b) Public standing

The possible indicators for academic standing can be seen from:

a) The academic honours received
b) Invitations to national academic committees
c) Quality of published work
d) Number and quality of projects undertaken
e) Evaluation of diploma or degree by academic world

The public standing is the confidence shown by the public in the capability of the institute's faculty, which can be seen from:

a) Number of public bodies and committees on which faculty is represented
b) Number of directorships and consultancies accorded to the faculty in the commercial field
c) Number of institutions willing to sponsor students for the institution's courses
d) Opinions of teachers in schools about the institute courses
e) The extent to which students complete the courses
f) Cultural norms of institute are recognised by the public e.g. equality of opportunity etc.
g) The progress of the alumni.

3) Public Responsibility

Since the institute is a public agency, the behaviour of the faculty and students should have a high standard of
public responsibility. A short fall in this will lead to public criticism, damage reputation, reduce morale and bring decay in institutional performance. This can be measured as

1) Compliance with rules and regulations
2) Ethical practices in the institution
3) Conflict of interests
4) Client convenience orientated courses
5) Public service activities
6) Student placements
7) Student opportunities for developing citizenship
8) Equality of opportunity in education

The measurement can be reviewed periodically.

PROCESS MECHANISM

The performance of an institution is based on the processes and processes mechanism which exist in the system. In this study, three types of mechanisms are visualised.

1) Contextual processes mechanism
2) Evaluation processes mechanism
3) Institutionalisation process mechanism

CONTEXTUAL PROCESSES MECHANISM

This process mechanism corresponds to the potential development performance component. It can be further subdivided into

A) Identification process mechanism
B) Culture creation mechanism
C) Boundary management mechanism.
A) Identification Process Mechanism

This is likely to be affected by the economic and political climate. This process mechanism will start right from the location stage which will be decided on the social, economical and industrial conditions. Then comes mobilizing the resources from different sources in the form of funds, facilities, donations etc. Support from industry, academicians, government, professional bodies and the community will be required at the local, state and national level. The support may not necessarily be in the form of money. This is mainly going to affect the facilities of the potential development performance.

B) Culture Creation Mechanism

The culture creation basically depends on the faculty members of the institute. Vikram Sarabhai says:

"I attempted some years ago a case study of the Atomic Energy Commission of India, as an organization for developmental tasks. We observed that the early beginnings of any institution are crucial, and the culture brought by the first entrants plays a significant role in restablishing norms, procedures and practices in the organization".

Staff selection policy plays an important role in shaping the character of the institute. Personnel policies should be able to include the following:

a) Enable high quality staff to be recruited at all levels
b) Provide high motivation for the job
c) Recognise and reward good performance
d) Provide opportunities for personal and professional growth
e) Encourage non-performers to find alternative employment outside.

The second component of this mechanism is the commitment of the faculty to the institute. Ganesh describes it as "enculturation". Motivation and enhancing the training will result in commitment. Training can be thought about as:

a) Management training for academicians and administrators at all levels
b) Scholarship enhancement, training and work experience for academic staff.

As new members enter the institute, they are bound to affect the development of the institute. Lastly, a redefinition of objectives is necessary when they become irrelevant.

C) Boundary Management Mechanism

The boundary management can be related to the resource availability. Wilson rightly describes the boundary position of a professional school:

"University professional schools, of whatever kind, are to some extent in the position of being boundary or buffer states between the community, and the central 'ivory tower' units of the university. Their position seems inevitable from the nature of their activities and is not a matter of choice. In industrial language these schools can be thought of as dominantly 'research and development' organizations, collating
integrating and modifying research of many kinds and from many sources to meet the needs of professional practitioners in the surrounding community. The schools make their contributions to that community through their teaching and their alumni, through research within the community, by contributions to professional education by evaluation of professional experience and by consulting work."

Identity building will affect the growth of the institution. Maintenance and enlargement of boundary is an essential phenomenon of the institute while shrinkage of boundary also appears in some of the institutions. The state of redefinition of objectives arises when the initial objectives are achieved or enlarged. In the words of Ravi Mathai, the boundary management can be described as:

"A management education institution can draw its boundaries in a variety of ways. The concepts of management can be viewed as being applicable to any form of organized human activity which requires planning, making decisions and implementing them. This leaves the whole world of human activity open to the management educationalist and his problem is then in the particular context in which he works, to determine the priorities regarding the directions he will take."

**EVOLUTION: PROCESS MECHANISM**

Evolution process mechanism is related to the effectiveness performance of the institution. It can be subdivided into:
1) Instructional process mechanism

2) Control process mechanism

1) Instructional Process Mechanism

This mechanism deals with the type of programmes offered; the type of model is then selected, depending on whether institution is a professional one or an academic one. Accordingly more weightage is given to theory or the practical. Is it following the pattern of other existing institutions elsewhere? How is the structure of the institution formalised and how is the grouping done? Course planning implementation and evaluation are operated through the formalised structure. Courses offered by the department can be appraised qualitatively by answering the following questions:

1) How does each course compare with the institution's standards and with similar courses offered in other institutions?

2) On what basis was the course founded?

3) Was the course first introduced by the polytechnic or by some other institution?

2) Control Process Mechanism

Managing the staff and students calls for decision making at various levels including reorganising system to balance push & pulls for smooth growth of the institution. An encouragement to the staff to express their views and discuss freely on all matters of importance. In case clients are going away, the need for restructuring the product,
programmes arises. The aspects of the environment that need to be controlled can be considered as follows for students.

<table>
<thead>
<tr>
<th>Environmental factor</th>
<th>Control indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Catering</td>
<td>a) Availability at location&lt;br&gt;b) Prices comparable to commercial ones&lt;br&gt;c) Nutritional value</td>
</tr>
<tr>
<td>2) Housing</td>
<td>1) Nonavailability of hostel accommodation to students&lt;br&gt;2) Comparison of polytechnic rent to commercial one&lt;br&gt;3) Expansiveness of social environment, halls of residence</td>
</tr>
<tr>
<td>3) Pastoral care</td>
<td>1) Number of students assigned to personal tutors&lt;br&gt;2) Provision of student counselling service</td>
</tr>
<tr>
<td>4) Student representation and participation</td>
<td>1) Proportion on academic committee&lt;br&gt;2) Proportion on review boards&lt;br&gt;3) Proportion on house committee&lt;br&gt;4) Proportion on recreation committee</td>
</tr>
<tr>
<td>5) Sport and recreational facilities</td>
<td>1) Common rooms and recreational areas&lt;br&gt;2) Sport and recreational facilities&lt;br&gt;3) Arrangement of time tables for full use of sport facilities</td>
</tr>
</tbody>
</table>
5) Grievance handling
Machinery

1) Openness of channels of communications
2) Speed of response to complaints
3) Maturity of the attitude towards students

7) Study facilities

1) Study facilities in bedrooms
2) Study facilities in libraries

5) Guidance on job opportunities

1) Availability of staff with industrial experience
2) Up to date information on job prospects
3) Close liaison with industry

It is also desirable to have some early warning signals for the staff. They can be
1) Extent of clarity of role perceptions
2) Proportion of job designs that give psychological and monetary rewards
3) Level of organizational hygiene
4) Level of stress in jobs
5) Visibility of performance
6) Motivational climate indicators
7) Integration of the institution in terms of task and groups.

INSTITUTIONALISATION PROCESS MECHANISM

This process mechanism is related to the future capabilities of the institution. This mechanism is not easy to analyse. However, two aspects of it are visualised.

1. Environment Interface Mechanism
2. Diffusion of Innovation Mechanism
1. Environment Interface Mechanism

An institution has to interface with the political, economic and cultural environment of the society. Does the institution influences the environment or the environment influences the institute process mechanism? Does the institute merely react or it is able to change the environment considerably. Whether autonomy for the institution is provided to ward off undue influences from outside and remain open to healthy influences.

The most critical component in the environment mechanism is the leadership pattern. The initial leader should be a dynamic one, who can motivate the people for unique culture creation. Then this culture should be maintained. Many a times a change of leadership style creates an altogether different culture and gives a new direction to the institute. Hence leadership emergence, identification and development are the main aspects of it.

An institute should have an excellent informatic system for planning and controlling it effectively. Authorities must provide incentives for performance improvement. The environment building will need research continuously. Apart from generating knowledge the needs of the clients should be locked after by the institute.

Social tune performance will be associated to this, some of the forms can be as follows. The institute regularly reports:
1) Identifying national issues that arise over a period
2) Whether the institute homed in on them
3) The nature of the initiative taken by the institute
4) The anticipated benefits to community and to the institute, and how far they have been achieved.

Some of the indicators for the building up of public responsibility performance are:
1) Compliance with laws by the institute
2) Ethical practices followed by the institute
3) Public service activity of people of the institute
4) Student opportunities for developing citizenship
5) Equality of opportunity in education.

2. Diffusion of Innovation Mechanism

Diffusion of innovation takes place through the courses and programmes. The generated knowledge is transferred for the action purpose. The models of diffusion of innovations as described by Ganesh are:

1. The Centre-Periphery Model
2. The Proliferation of Centres Model

"Two important variants of centre-periphery models are the 'travelling centre' and 'magnet centre'. Whichever the variant, this model is limited by the resources or the energy at the centre, the number of radii that can be effectively handled. In so far as an institution is concerned, it is possible to diffuse its programmes which themselves constitute innovations, through the centre-periphery model."
The proliferation of the centres model is an elaboration of the previous model. It posits the creation of secondary centres to engage in the diffusion of innovations. The role of the primary centres is to support and manage secondary centres. This model is limited by the primary centre's ability to generate, support and manage the new centres. This model is not very appropriate for institution building efforts.

The other aspect is the value process mechanism. Every institute works in the societal context. Pareek writes (1981)

"What values prevail in the society are important, values should be understood not only in the sense of what is given more importance in the society, but also in terms of what model of man is considered important in the society. Is man regarded and treated as a passive recipient or as an active agent? The process of self awareness at the community level brings attention to these matters of values".

INSTITUTION BUILDING STATUS INDEX

Institution building model with respect to its performance is given in Fig. 5.2. It indicates the main component of performance as context, potential development, effectiveness and future capability. The different process mechanisms like contextual process mechanism evolution process mechanism and institutionalisation process mechanism are appropriately linked. There are certain feedback loops FB1, FB2, FB3, FB4, FB5 and FB6 between
INSTITUTE BUILDING STATUS MODEL

![Diagram of Institute Building Status Model]

M1 - Contextual process Mechanism
M2 - Evolution process Mechanism
M3 - Institutionalisation process Mechanism

Institute building status index = IBSI

\[
IBSI = \frac{1}{2} \left[ \frac{\alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \alpha_4 x_4 + \alpha_5 x_5 + \alpha_6 x_6 + Q}{6} \right]
\]

Where \( \alpha_4 = \frac{\alpha_1 + \alpha_2}{2} \), \( \alpha_5 = \frac{\alpha_2 + \alpha_3}{2} \), \( \alpha_6 = \frac{\alpha_1 + \alpha_2 + \alpha_3}{3} \)

\[
x_4 = \frac{x_1 + x_2}{2}, \quad x_5 = \frac{x_1 + x_2}{2} \quad \text{AND} \quad x_6 = \frac{x_1 + x_2 + x_3}{3}
\]

FIG. 5.2
Institute Building Status Index = \( \text{IBSI} \)

\[
\text{IBSI} = \frac{d_1 x_1 + d_2 x_2 + d_3 x_3 + d_4 x_4 + d_5 x_5 + d_6 x_6}{6} + Q
\]

where

\[
d_4 = \frac{d_1 + d_2}{2}, \quad d_5 = \frac{d_2 + d_3}{2}
\]

\[
d_6 = \frac{d_1 + d_2 + d_3}{3}
\]

\[
x_4 = \frac{x_1 + x_2}{2}, \quad x_5 = \frac{x_2 + x_3}{2}
\]

\[
x_6 = \frac{x_1 + x_2 + x_3}{3}
\]

Context and potential development, potential development and effectiveness, effectiveness and future capability, context and effectiveness, potential development and future capability, context and future capability respectively. \( d_1, d_2, \text{ and } d_3 \) are the rated values of the mechanism. This will differ from institute to institute. Similarly feedback can also be measured as \( x_1, x_2, x_3, x_4, x_5, \text{ and } x_6 \). With this data the Institute Building Status Index can be calculated applying the formula.

\[
\text{IBSI} = \frac{d_1 x_1 + d_2 x_2 + d_3 x_3 + d_4 x_4 + d_5 x_5 + d_6 x_6}{6} + Q
\]