CHAPTER 6

THREE EXPERIENCES IN INSTITUTION BUILDING

After independence, India was faced with the task of nation building. Education was one of the instruments. Hence many new institutions were created in the field of technology, agriculture and management in the first two decades after independence.

The Education Panel of the Planning Commission at its meeting held in Poona in July 1957 recommended that "a suitable committee should be appointed to examine whether the present system was helping girls to lead a happier and more useful life". The problems of educating girls and women in India acquired a new significance after independence and there was growing realisation, both in the minds of the people and the Government, that unless every effort was made to find a solution, the progress of the country would be seriously hampered. Hence the National Committee on Women's Education was set up by the Government of India under the Chairmanship of Shrimati Durgabai Deshmukh, Chairman, Social Welfare Board. One of the terms of reference of the committee was:

"to examine the possibility and methods of encouraging a large number of women to go into vocational trades by providing suitable vocational training as a part of formal education or through special courses designed".
The Committee came out with a long list of recommendations. The Recommendations pertaining to polytechnics were:

1) Difficulties are being experienced by girls in getting admission to polytechnics in some states. These should be removed.

2) Polytechnics, which provide courses suitable for both boys and girls, should be made co-educational.

3) Girls should be encouraged to take up courses in commerce, engineering, agriculture, medicine etc.

4) In the case of women, vocational institutions should restrict courses of training to occupations for which there is a local need sufficient to absorb them after training in the same locality as far as possible.

5) Government should take adequate steps to ensure that girls and women who complete their training courses are, as far as possible, gainfully employed immediately after training.

Although all educational committees and commissions appointed in post independence India devoted some attention to women's education, the problem was examined in detail by three main bodies. The National Committee on the Education of Women under the chairmanship of Durgabai Deshmukh was set up in 1959. The committee humbly believed that public opinion has to be built in favour of women's education to overcome traditional prejudices. State Councils for women's education were to be constituted to look after women's education in the states. Another committee on the
"Differentiation of curriculum for boys and girls" was appointed in 1933 under the chairmanship of Mrs. Hansa Mehta, former vice-chancellor of Baroda University. The committee felt that special emphasis should be laid on suitable crafts at the primary stage. Language and social studies text books should pay special attention to the needs of girls. The committee appointed in 1963 under the chairmanship of Shri M. Bhaktavatsalam studied the problem of lack of public support to women's education. They advocated help to voluntary agencies in the spread of education amongst women.

The education commission appointed in 1964 under the chairmanship of Dr. Kothari, while studying the various aspects of Indian education, reviewed women's education also. They endorsed the recommendations made by the three committees mentioned above. The Education Policy Resolution of 1963 also made a reference to the need for expanding women's education at all stages. The main initiative was, however, left to the states with Central assistance.

Examining the status of women's polytechnics in India, finds that the All India Technical Council considered the recommendations of these Committees and decided to start women's polytechnics in all states. It was decided to start twenty-two women's polytechnics throughout the country. At present there are 23 polytechnics exclusively for girls in the country. This figure is too small a part of the total number of 327 polytechnics functioning in the country.
A statewise picture yields some interesting findings. There are no exclusive women's polytechnics in the states of Bihar, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Manipur, Meghalaya, Nagaland and Tripura. There is only one polytechnic for girls in the states of Assam, Haryana, Madhya Pradesh, Orissa, Punjab, Uttar Pradesh, West Bengal and Chandigarh. There are two each in Gujarat and Delhi and three polytechnics in Andhra Pradesh, Karnataka and Tamil Nadu and Kerala has four women's polytechnics. The whole country is divided into four regions namely eastern, western, northern and southern. The western region was covered by opening four women polytechnics, one at Bombay (Maharashtra), Bhopal (M.P.), Ahmedabad (Gujarat) and Surat (Gujarat).

The most popular course by far is commercial practice which is available in some 13 institutions in the country; in Andhra Pradesh, Gujarat, Kerala, Orissa, Tamil Nadu and Uttar Pradesh. Almost equally popular among girls are architectural assistantship and communication engineering. Dress making and costume designing is the next most popular course.

The performance of three institutes over a period of time has been studied, some process mechanism have been identified and related with institutional development. An attempt has been made to examine the feedback linkages which have negative effect. These Institutes are 1) Sophia College, Basant Kumar Someni Polytechnic, Bombay (SPB) 2) Govt. Polytechnic for Girls, Ahmedabad (GFGA) 3) Government Women's Polytechnic, Bhopal (GWPB).
Under the third Five Year Plan Scheme different State Governments established women's polytechnics.

1) Idea Origination and History

The National Committee on the Education of Women (1959), headed by Durga Bai Deshmukh, had recommended the establishment of separate polytechnics and vocational institutes for women. The All India Technical Council had considered these recommendations and directed the state governments to start women's polytechnics. The Gujarat government in 1964 started a polytechnic for girls at Ahmedabad.

Similarly, the state government of Madhya Pradesh also started a women's polytechnic in Bhopal in the same year. The Sophia, Shree Basant Kumar Somani Memorial Polytechnic was established in 1970. It was founded by the society of the Sacred Heart, an international congregation of religious sisters dedicated to the education of youth from the nursery level to the post-graduate level. Hence it can be seen that two polytechnics were begun by the Government and one by a society.

2) Resources and Dependence

The Government Polytechnic for Girls, Ahmedabad and Government Women's Polytechnic, Bhopal (M.P.) depend heavily on the Government for its financial resources while the Somani Memorial Polytechnic did not have stronger links with the Government. Hence it had to depend on other resources like society funds, fees collection, donation collection etc. In case of GPGA and GWPB while the scheme
was directed by the Central Government, it could get the support at state government also. Apart from governments, local technical institutes also extended their support while in case of S.P.B. established as a part of Sophia College, it could not succeed in many ways to achieve the independent status of an Institute for a long time. Hence in this factor government institutes were better placed by providing free education to girls and debiting all its expenses in Central Government accounts for two plan periods.

INSTITUTIONAL FORM AND STRATEGY

All these polytechnics have post schooling education as the dominant strategy. GPDA & GWPB offer 2 to 3 year courses at the diploma level while S.P.B. opted for short duration certificate courses along with the few vocational diploma courses. GPDA and GWPB took up the technical and vocational disciplines for their diploma courses while S.P.B. took only vocational courses. Technical courses were not touched at all.

The concept of exclusive women's polytechnic is a new concept. Nowhere in the world has it been tried out. India was the first country to experiment. Pakistan, Bangladesh and Nigeria followed the Indian pattern later on. The culture and social values of some of the developing countries are so different from that of the west that any institute based on the western model would be a misfit in Indian society.
However, OPGA and GWPB could get some guidelines from existing polytechnics for boys in the vicinity while S.P.B. developed its own.

LOCATION

On the recommendations of the All India Technical Council, the Central Government directed each state to start at least one polytechnic exclusively for women. The state governments generally opened these polytechnics in the capital city. The rationale was that people in large cities were progressive and broad-minded and would support the idea of sending their daughters to technical courses.

It is the general feeling amongst our society that technical courses are meant for boys as they require more physical labour. That's why Bhopal and Ahmedabad (the then capital of Gujarat) were chosen for establishing the polytechnics.

The SPB were set up in a slightly different manner. Since the industry was not getting enough people in some vocational fields, the governing body of the society of the Sacred Hearts for the Higher Education of Women in India started few vocational courses. SPB & GPGA both are situated in the vicinity of the educational campus like college university campus.

ENVIRONMENT

All women's polytechnics were born out of the women's education movement in mid-sixties and early seventies. Hence the environment can be considered as common to all. SPB had special focus on vocationalisation, while GPGA and GWPB focused on technical courses.
The momentum was picked up faster in SPB than in the GPA and GWB. This can be correlated with the size of Bombay, Ahmedabad and Bhopal respectively. Bombay is a cosmopolitan city with a very high industrial growth. Hence it had welcomed such an institute. People from all parts of the country live here, economic conditions are quite good but living expenses are quite high. Hence, there is a tendency for all family members to work. This is the socio-economic factor responsible for the least resistance in the growth of polytechnics.

Ahmedabad is a business centre. Industrial growth is also high but not of that magnitude as that of Bombay. The Gujaratis are in a majority. Hindi speaking people from Northern India can be found in clusters. As a result, courses connected with business became quite popular on one hand while on the other hand, courses of high degree of skills also become quite popular.

Bhopal is not an industrial town nor does it have business orientation. The major industry here is Government and public & private sectors offices. But people have the aptitude and appreciation for crafts. Hence courses of traditional craft became quite popular, unlike in Ahmedabad.

The power is an essential core of the institution hence it is not taken as the factor but associated with the leaders. GPA & GWB could not get a full time principal for a decade and more, while SPB was fortunate to get a full time
principal Mrs. Sukhadia right from the beginning. GPDA had part time and temporary principals for nine years - Shri Pandit, Shri Shastrabudhe, Shri Bhatt B.H. and Shri Baxi B.R. respectively. Shri Pandit was principal of the Govt. polytechnic and hence was a very busy man. The other three were heads of the departments in the other polytechnics. They could give some momentum to the institute. Shri B.R. Baxi proved quite dynamic and resourceful in managing the affairs of the polytechnic. After nine years the State government advertised the principal's post and a regular lady principal was selected through Gujarat Public Service Commission. Positions of senior staff members were also filled up very late.

The situation was worst in the case of the GWPB. Dr. Dhargava was appointed as the first part time principal for the polytechnic. Normally, the principal of a government polytechnic (for boys) was also made part time principal of a women's polytechnic. These people were quite busy in their own affairs. The institute could not come out from the routine affair stage. However senior people could be recruited much faster than GPDA but principal's post was advertised after 13 years of existence of polytechnic.

Power is considered as the core element and hence it is considered as the essential one. However the type of power differed from institute to institute. GPDA and GWPB are both government institutions. Their orientation is more towards rules and procedures. Each department works independently
to establish its authority. Hence both the polytechnics have a greater orientation towards bureaucratic framework. SPB has an autonomous management system. It has the tendency towards a feudal type of framework, where personal loyalty gets its due share of rewards.

A summary on context parameter is given in the Table 6.1. The institutes were rated 1, 2 & 3, 1 being the best performance, 2 the second best and 3 the third best.

Table 6.1

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factors</th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Idea History</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Resources &amp; Dependence</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Institutional form and Strategy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Location</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Environment</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Initial leaders &amp; power</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

\[
\begin{array}{lll}
\text{rating} & 9/6 & 13/6 & 12/6 \\
\text{average} & 1.5 & 2.1 & 2.0
\end{array}
\]

**Table 6.1**

**CONTEXT RATING**

**PERFORMANCE**

To measure this aspect of the performance, two methods were used. Firstly, data was collected from the polytechnic's records and analysed; the secondly a questionnaire was prepared and faculty idea was recorded in all the polytechnics. Since the number of faculty members was
not very large, practically all the faculty members filled up the forms. A comparison in theoretical and practical approach was attempted.

Faculty: When the position of the faculty was examined, it was found that at the time of its inception, GPGA had 5 faculty members. This number rose to 14 after 10 years to 32 after 18 years.

In case of SPB, it had 14 faculty members to start with. This grew to 33 after 10 years. In case of GWPB, 4 faculty member started the polytechnic. Today (that is after 18 years) it has gone up to 24. It can be seen from the three cases that SPB had a good start as compared to other two cases. The growth rate of faculty members in SPB has been quite fast. GPGA and GWPB being the government organisations, faced a lot of difficulty in selecting the staff. More then fifty per cent staff was selected by the Public Service Commission. Hence, the investment in human capital was done in an appropriate way by SPB while in the other two it was found quite weak.

Facility: The development of facilities also followed the same pattern. SPB had its own building when it started. It is situated in the Sophia College campus, which is a general institute of higher learning. In case of GPGA, it started working in the premises of R.C. Technical Institute, Ahmedabad, within three years it had its own building and campus near Gujarat University. The location selected was excellent and has an academic environment. It is easy to approach and this is considered an aristocratic area. However the
polytechnic could not develop its hostel facilities in spite of finance available from the Central Government. The high-ups were reluctant to construct the hostel in the campus for it would be close to the hostel of Engineering College. No decision was taken for 17 years. Uptil recently, the polytechnic shared hostel facilities with the Gujarat College Ladies Hostel. A hostel is now being constructed nearby and is near completion. The Gujarat University authorities have offered them a helping hand.

The situation is not very rosy in case of GWPB. Till recently, it was housed in the building of D.M. Kala Parishad in Bhopal. However, the hostel was attached to it right from the beginning. After 16 years in 1980, it shifted to its own premises, with an hostel attached.

SPB shared library facilities with the other institutes while GPGA and GWPB had their own libraries right from the beginning. As a result, GPGA has a good library. The book bank facilities are available to students in this library. In the case of Bhopal, a similar status does exist.

Equipmentwise, GPGA stands in a better position than the other two. Development of reprographic facilities, audio visual resources and consultancy services have taken place in GPGA, while the other two are yet to develop it. The creation of infrastructure to facilitate the activities of an institution is very important in institution building.
RESOURCES

GPGA got a grant of Rs. 26.65 lakhs from the Central Government, 17.67 lakhs towards building, 5.67 for equipment and 3.40 lakhs as the recurring grant. The condition was that the 25% of the building and equipment grant should be provided by the state government and 50% of the recurring grant should come from state government and after plan period it should be completely financed by the state government.

Today the recurring grant is 12.95 lakhs, 1.4 lakhs for equipment and 0.26 lakhs for building. The State Government started taking fees from 1979. The other source of income is the production-cum-training centre and consultancy. This is not very significant. However it had a moral impact on the faculty.

S.P.B. is mainly getting its finance from the fees collected from the students, which is quite high. Apart from this, the Directorate of Technical Education and Directorate of Arts are financing their courses. In case of GWPB, the grant comes from the state government. No other resources are available to them. Education is still free in GWPB. A rating of these factors is given in Table 6.2.

Table 6.2

Rating for Potential Development (Theoretical)

<table>
<thead>
<tr>
<th>Factors</th>
<th>GPGA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Facilities</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Resources</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Composite rating</td>
<td>1.33</td>
<td>3</td>
<td>1.96</td>
</tr>
</tbody>
</table>
The questionnaire filled by the faculty members of all the three polytechnics reveals the facts given in the table 6.3.

Table 6.3

POTENTIAL DEVELOPMENT

A) Investment in human capital

<table>
<thead>
<tr>
<th></th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Planning</td>
<td>3.60</td>
<td>3.23</td>
<td>3.12</td>
</tr>
<tr>
<td>2) Staff dev. programmes</td>
<td>3.67</td>
<td>3.20</td>
<td>3.73</td>
</tr>
<tr>
<td>3) Staff selection policy</td>
<td>3.60</td>
<td>3.20</td>
<td>3.90</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.62</td>
<td>3.21</td>
<td>3.6</td>
</tr>
</tbody>
</table>

B) Investment in Facilities

<table>
<thead>
<tr>
<th></th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Planning</td>
<td>4.10</td>
<td>2.00</td>
<td>2.95</td>
</tr>
<tr>
<td>2) Space</td>
<td>3.80</td>
<td>2.20</td>
<td>3.65</td>
</tr>
<tr>
<td>3) Library facilities</td>
<td>3.95</td>
<td>2.73</td>
<td>2.63</td>
</tr>
<tr>
<td>4) Reprographic facilities</td>
<td>4.24</td>
<td>3.10</td>
<td>4.50</td>
</tr>
<tr>
<td>5) Audio visual resources</td>
<td>4.30</td>
<td>2.90</td>
<td>3.25</td>
</tr>
<tr>
<td>6) Equipment</td>
<td>4.10</td>
<td>2.66</td>
<td>2.83</td>
</tr>
<tr>
<td>7) Development of consultancy services</td>
<td>4.30</td>
<td>3.20</td>
<td>3.50</td>
</tr>
<tr>
<td>8) Campus</td>
<td>3.00</td>
<td>3.50</td>
<td>3.50</td>
</tr>
<tr>
<td>9) Upkeep of facilities</td>
<td>3.10</td>
<td>3.00</td>
<td>2.705</td>
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<tr>
<td>Average rating</td>
<td>3.70</td>
<td>2.81</td>
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</table>

C) Economic Resources

<table>
<thead>
<tr>
<th></th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Resource planning</td>
<td>4.00</td>
<td>3.10</td>
<td>2.70</td>
</tr>
<tr>
<td>2) Cost analysis</td>
<td>4.07</td>
<td>3.30</td>
<td>2.76</td>
</tr>
<tr>
<td>3) Resource utilisation</td>
<td>3.30</td>
<td>3.037</td>
<td>3.03</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.75</td>
<td>2.822</td>
<td>2.83</td>
</tr>
<tr>
<td>Composite rating</td>
<td>3.69</td>
<td>2.94</td>
<td>3.23</td>
</tr>
</tbody>
</table>
INVESTMENT IN HUMAN CAPITAL

The faculty of GPA perceives that planning rating as 3.6. Planning includes the staff development plan, method of appraising faculty and identifying their training needs with timely monitoring. It also includes the vacancies and its relation with performance of the institute. Staff development programmes include quality improvement programmes, summer schools, post training schemes of external and internal staff development and staff involvement in the professional bodies. This factor is rated as 3.67. Staff selection policy includes the procedure for selection and developing competition in existing staff for higher jobs. This rating is done as 3.6. Hence average rating of investment in human capital comes out to be 3.62. The case of GWPB for the theoretical model (based on records) and practical model differ. GWPB is 1, SPB is 2 and GPA is 3. The main difference is in GWPB ratings. The staff perceives it as quite good compared to recorded evidence. However 3 rating corresponds to average performance in the questionnaire.

INVESTMENT IN FACILITIES

The rating in the facilities as perceived by the staff for GPA is 3.7, GWPB is 2.31 and SPB is 3.25 which gives the rating as GWPB 1, SPB 2 and GPA as 3. Here the departure in the theoretical approach and practical approach is for the GPA and GWPB. In case of GPA, the staff feels that the investment is average, while from records it reveals that investment is the fastest amongst the three institutions.
In case of GWPB staff feels that facilities are quite good, but as a matter of fact the development is the slowest here.

**ECONOMIC RESOURCES**

Resource planning, resource utilisation and cost analysis are the basic parameters for this factor. Here also the rating pattern for GWPE, SPB and GPA is 1, 2 & 3 respectively. Here also the gap is for the GPA and GWPB. Resource mobilisation is highest in GPA but staff feels it is of the average value. The reverse is the case of GWPB.

**Table 6.4**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.62</td>
<td>3.21</td>
<td>3.60</td>
</tr>
<tr>
<td>Facility</td>
<td>3.70</td>
<td>2.31</td>
<td>3.25</td>
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<tr>
<td>Resource</td>
<td>3.75</td>
<td>2.82</td>
<td>2.83</td>
</tr>
<tr>
<td>Composite rating</td>
<td>3.69</td>
<td>3.34</td>
<td>3.23</td>
</tr>
</tbody>
</table>

**EFFECTIVENESS**

A) Programme: The GPA started in 1964 with three diploma courses

1) Diploma in Architectural Assistantship

2) Diploma in Electronic and Radio Engineering

3) Diploma in Secretarial Practice

The students numbered about 30, in 1970 in one diploma and two certificate courses were introduced by the state government. These are:
1) Diploma in Costume Design and Dress Making
2) Certificate in Tailoring course in Women and Children's Garments
3) Certificate in Embroidery and Fancy Work

Looking to the need for short duration courses for housewives, the state government started three certificate courses namely:

1) Certificate in Toy and Doll Making
2) Certificate in Batik - 6 months
3) Certificate in Flower Arrangements - 6 months.

The duration of Diploma courses is 3 years while the certificate courses ranging from 6 months to one year.

In 1981 another certificate course of 2 years duration was started, namely

1) Certificate in Textile Design.

Similarly from June 1982 a post diploma course in Interior Designing was started. This was the first time that post diploma courses exclusively for women were begun in the country. All India Technical Education Council, All India Technical Education Board and Western Region Committee had debated a lot before they permitted to start post-diploma at Ahmedabad. The intake capacity for the Diploma courses is 30 students, Certificate is 20, while post-diploma is 10.

A part time Certificate course in Radio Mechanics is being run.

In case of G&PB, the polytechnic was started in 1964 with four diploma courses. These diploma courses were:
1) Diploma in Medical Laboratory Technology - 2 years
2) Diploma in Architecture - 3 years
3) Diploma in Costume Design & Dress Making - 3 years
4) Diploma in Secretarial Practice and Stenography - 2 years

The intake capacity for No. 2 and 3 is 15 each while for No. 1 and 4 it is 15 each. Till today no changes have been made in these courses. No additional course has been introduced nor has any course been discontinued.

The SPB started in 1970 with four full time diploma courses:

1) Diploma in Commercial Art - 4 years
2) Diploma in Textile Designing - 2 years
3) Diploma in Social Communications Media - 1 year
4) Diploma in Institutional Food Crafts & Management - 2 years

The six full time certificate courses are:

1) Foundation Art Certificate - 1 year
2) Certificate in Private Secretaryship - 1 year
3) Certificate in Medical Secretaryship - 1 year
4) Certificate in Stenography - 1 year
5) Certificate in Travel Agency Work - 1 year
6) Certificate in Nursery Teacher Training - 1 year

The two part time diploma and 5 part time certificate courses are as follows:

1) Diploma in Interior Decoration & Designing - 1 year
2) Diploma in Dressmaking and Design - 2 years
1) Certificate in Interior Decoration & Designing 1 year
2) Certificate in Silk Screen Printing 1 year
3) Certificate in Window Display 1 year
4) Certificate in Batik 1 year
5) Certificate in Embroidery & Needlecraft 1 year

Eleven courses in the form of hobby courses were also started at that time.

The certificate course in travel agency work was upgraded to a diploma course within five years. The certificate courses in stenography and embroidery & needlecraft were discontinued. Today 12 hobby courses are being run in which some new subjects like bonsai and flower arrangement are included. The number of students presently studying in the polytechnic is given in Table 6.5.

**Table 6.5**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Courses</th>
<th>GPA</th>
<th>GPWB</th>
<th>SPB</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Post diploma courses</td>
<td>11</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Diploma courses</td>
<td>405</td>
<td>172</td>
<td>307</td>
</tr>
<tr>
<td>3</td>
<td>Certificate courses</td>
<td>120</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Part time courses</td>
<td>30</td>
<td>-</td>
<td>101</td>
</tr>
<tr>
<td>5</td>
<td>Refresher courses</td>
<td>60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total student strength</td>
<td>626</td>
<td>172</td>
<td>578</td>
</tr>
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</table>

The refresher courses listed refer to the summer schools for the teachers. The courses in Electronics, costume design and dress making, embroidery and office
management are held in winter and during the summer vacations. This factor is missing at GPA & SPB.

The change in the name of diploma took place at GPA and SPB in Commerce, Architecture, Electronic diploma and Food craft diploma respectively but GWPB is a constant model in course variation.

All the courses are evaluated by the respective State Technical Examination Boards in the case of GPA and GWPB. In case of SPB, there are three examination bodies. Directorate of Art, State Technical Examination Board and the Institution itself. Foundation art, diploma in commercial art and diploma in textile designing are examined by the Department of Art & Design, while the Diploma in Social Communication Media, Travel & Tourism, Dressmaking & Designing are assessed by the Technical Examinatation Board. The remaining are examined by the Institute itself.

Curriculum development work is done by the polytechnics in Gujarat with the help of Technical Teachers Training Institute, Bhopal. Hence GPA is better placed than SPB & GWPB. Hence the rating will come out like GPA-1, SPB-2 and GWPB-3.

One common phenomenon is that all these courses are quite in demand. Applications received for the courses are three times more than the intake capacity.

Table 6.6 reflects the analysis of questionnaire sectorwise. In case of programme, the practical rating comes out to be GPA, GWPB & SPB as 3, 2, 1 respectively.
Table 6.6

(Practical model)

<table>
<thead>
<tr>
<th>Effectiveness</th>
<th>GPGA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme</td>
<td>3.18</td>
<td>3.17</td>
<td>2.48</td>
</tr>
<tr>
<td>Product management</td>
<td>3.98</td>
<td>1.82</td>
<td>2.35</td>
</tr>
<tr>
<td>Management vs employees</td>
<td>4.19</td>
<td>2.106</td>
<td>2.40</td>
</tr>
<tr>
<td>Average</td>
<td>3.75</td>
<td>2.36</td>
<td>2.53</td>
</tr>
</tbody>
</table>

PRODUCT MANAGEMENT

In case of GPGA the elected students form a gymkhana committee. The president of this committee is the principal and the secretary is elected from amongst the students. This committee is consulted on all important matters pertaining to the students. Hence students are involved in decision making process indirectly. It is the same in GWPB and SPB. It is called a student body. Redressal of grievances are done through the same body.

Student discipline, conduct rules and examination rules are well defined in case of SPB and GPGA. SPB is able to enforce the fine punishment and rule effectively. However no strike took place in SPB as well as GWPB, SPB happens to be a part time course offering institute. The students coming for part time courses are more sincere and mature as they have other responsibilities. In case of GWPB the students seems to be more mature. Minor strikes took place in GPGA from time to time for Navnirman agitation, Anamat agitation etc. The reason behind it is environment.
GP&A has all its diploma courses as 'in plant training' type. Hence six months training in the industry is essential. A placement & training officer is appointed from amongst the senior heads of departments for this purpose. He is making placement of the students every year.

In off season he guides and counsels the students and encourages positive attitude among them. He maintains history cards of former students. Students amenities like hobby centre, sports, canteen, cooperative stores are well developed in GP&A and SPB. Hence the rating will come out as SPB, GP&A and GWPB as 1, 2 and 3 respectively. Comparing this with the practical model, gives the rating as GWPB, SPB and GP&A as 1, 2, 3 respectively. The gap is again for GWPB.

Table 6.7

<table>
<thead>
<tr>
<th>Effectiveness</th>
<th>Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GPA</td>
</tr>
<tr>
<td>A) Programme</td>
<td></td>
</tr>
<tr>
<td>Academic planning</td>
<td>2.91</td>
</tr>
<tr>
<td>Implementation</td>
<td>3.03</td>
</tr>
<tr>
<td>Evaluation</td>
<td>3.80</td>
</tr>
<tr>
<td>Research &amp; Innovation</td>
<td>3.00</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.18</td>
</tr>
</tbody>
</table>
### B) Product Management

<table>
<thead>
<tr>
<th>Category</th>
<th>GPGB</th>
<th>GPPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' participation</td>
<td>4.00</td>
<td>2.50</td>
<td>2.53</td>
</tr>
<tr>
<td>Redressal of grievance</td>
<td>4.44</td>
<td>1.60</td>
<td>3.62</td>
</tr>
<tr>
<td>Student discipline</td>
<td>3.70</td>
<td>3.59</td>
<td>3.56</td>
</tr>
<tr>
<td>Guidance &amp; Counselling</td>
<td>3.53</td>
<td>1.00</td>
<td>2.69</td>
</tr>
<tr>
<td>Encouraging positive attitudes</td>
<td>3.56</td>
<td>1.00</td>
<td>2.45</td>
</tr>
<tr>
<td>Student amenities</td>
<td>4.70</td>
<td>1.10</td>
<td>2.40</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.98</td>
<td>1.82</td>
<td>2.35</td>
</tr>
</tbody>
</table>

### C) Management Vs Employees

<table>
<thead>
<tr>
<th>Category</th>
<th>GPGB</th>
<th>GPPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation and morale</td>
<td>4.00</td>
<td>1.36</td>
<td>2.16</td>
</tr>
<tr>
<td>Participation in management</td>
<td>4.16</td>
<td>1.43</td>
<td>2.33</td>
</tr>
<tr>
<td>Conflict resolution</td>
<td>4.50</td>
<td>2.00</td>
<td>2.70</td>
</tr>
<tr>
<td>Relationship with staff associations</td>
<td>4.00</td>
<td>3.35</td>
<td>2.30</td>
</tr>
<tr>
<td>Encouragement of positive attitude</td>
<td>4.90</td>
<td>2.00</td>
<td>2.39</td>
</tr>
<tr>
<td>Welfare schemes</td>
<td>3.50</td>
<td>2.00</td>
<td>3.33</td>
</tr>
<tr>
<td>Average rating</td>
<td>4.19</td>
<td>2.106</td>
<td>2.40</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.75</td>
<td>2.36</td>
<td>2.53</td>
</tr>
<tr>
<td>Composite rating</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
MANAGEMENT VS EMPLOYEE RELATIONS

GPGA & GWPB have not succeeded in giving motivations to the staff, based on their individual needs, as these happen to be the government institutions. However regular assessment of their work is done in the form of confidential reports. GPGA had teacher forms for self-assessment of the staff. GWPB self-assessment is not dealt in depth. In SPB motivation is of higher order. However, the highest trained persons are with GPGA. The staff members, particularly the faculty members, participate in decision making through various department and inter-department committees like the admission committee, detention committee, placement committee, pedagogical council, exhibition committee, production-cum-training centre committee etc. The number of committees is higher in GPGA than in the GWPB and SPB. The participation is also of a greater degree.

As the management at all the institutes has vertical hierarchy, conflict and grievance generation is at four levels - department, institute, directorate and government. There is one common problem in GPGA and GWPB - the faculty is given lower pay scales than the general polytechnic teachers. Right from the beginning the Sarela Pay Commission (1967) had specially written in their recommendation that "teaching girls is a lower responsibility job hence the faculty, including the principal, should be given lower pay scales than the other polytechnics". However now all scales are equated except one or two in GPGA.
case of GWBP, discrepancy still exist. SPB never compared itself with polytechnics. There comparison exist with Sophia College. Department and institutional problems are of minor nature and they never came out of the institutes.

As regards the staff position in terms of vacancies concerned, the GWBP gets them filled up by diluting the recruitment standards. The leadership of the Director of Technical Education played a vital role in this. SPB found it easy to recruit staff but the problem here is of fast departure of staff from the polytechnic for better opportunities. This is happening because a big city has many openings and opportunities. In case of GPA, there has always existed a demand for qualified persons. The state government was very particular not to dilute the academic standard and in case of staff one peculiar situation in western region is that, males are considered eligible for the different posts which is not the case in other regions. In north zone no male can apply to any of the post in the women polytechnic. However the academic excellence is found of higher order in Western Zone. The number of staff having post-graduate qualification is highest in the GPA. The persons with diploma qualification are highest in SPB and second highest in GWBP while GPA has none. The administrative supporting staff like stenographer, registrar etc. are also better equipped in GPA than in SPB and GWBP.
Neither GWPB nor SPB have any formal staff associations. In case of GPA, there exist local units of class IV, class III, two associations of polytechnic teachers and principals' association. Associations had extended a helping hand in the past to the administration specially to the teachers associations. Hence they are in harmony and united in fighting for vital policy issues like pay scales, promotions, vacancy filling etc.

A positive attitude is developed in the staff through many ways. GPA and SPB have production centres. GPA has an in-service programme of training with the collaboration of Technical Teachers Training Institute, Bhopal, leading to diploma course for 1½ year duration. GPA and GWPB send their staff for short duration refresher courses of pedagogical nature. GPA is deputing staff for Summer Schools of technical nature also. Training facilities are comparatively a weak mechanism in SPB. Get together, picnics are quite popular in GWPB and GPA. Consultancy and testing facilities are available in GPA and SPB. The staff is also competent to get these jobs at both the places.

Looking to these performances the rating can be done as SPB, GPA and GWPB as 1, 2 and 3 respectively, hence again there exist a big difference in favour of GWPB. A summary is given in Table 6.3.
Table 6.8

Effectiveness Change Rating (Theoretical)

<table>
<thead>
<tr>
<th>Factors</th>
<th>CPA</th>
<th>WPB</th>
<th>PBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Programme</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2. Product Management</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3. Management Vs Employees relations</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>1.66</td>
<td>3</td>
<td>1.33</td>
</tr>
</tbody>
</table>

**Future Capability**

The third dimension of institution performance is nothing but investment for future. It is an indication as to how institute is going to survive, how it will be able to cope up with the emergencies and casualties in the future, its survival potential. The three major aspects are examined in detail:

A) Social awareness

Pareek (1981) defines the social awareness as conscientisation. "Conscientisation is the process of increasing awareness about the social reality and increasing the positive self concept in relation to such social reality. The process needs the attention of not only those who are working with the community but also other organisation for which community has some relevance".

Responsiveness to client needs

Apart from the regular courses leading to diploma
and certificates, GPCA runs short duration courses. As per the state government's policy of vocationalisation of education in the state, the schools have started a few crafts as optional subjects at the higher secondary level in 1973. On the request of Department of Education, 300 teachers were trained in different craft and trades within 3 years. The short duration courses were conducted in the summer and winter vacations by the polytechnic faculty. The crafts were electronic, tailoring and embroidery and fancy work.

Similarly, courses in office management and electronics were conducted for polytechnic teachers of the Gujarat state. Summer and winter vacation training courses for women in electronics are in progress to cope up the need of the electronics industry which is coming up in Gandhinagar. The state government is giving special facilities to the electronics industry to convert the state into a second Japan.

In case of SPB responsiveness to client needs is in the form of hobby courses. There were 4 in the beginning, now there are 12. New crafts like bonsai, batik and flower arrangements are also included. These are one and a half months to 6 months duration courses. In case of GOWB, this factor is completely missing.

To study the performance of former students, GPCA has a mechanism of keeping history card for 5 years of students who have passed the diploma courses. In case of
SPB and GWPB no such system is followed. In case of GPA
20% of the commerce students go for job, 70% of the archi-
tecture and electronics students go for jobs while 35% of
costume design students go for employment. The commerce
students go in for higher studies like B.Com., M.Com., CA
etc. for diplomas are eligible for further study, while
costume design students prefer to start their own business.
In case of SPB the general impression is that 30% students
go for employment. In case of GWPB the employment for
architecture and costume design is very poor. Aptitude for
starting their own office or industry is missing in the
students who have passed out. The reasons for unemployment
reported are:
(1) being financially better off (2) marriage (3) having
young children (4) family circumstances.

As far as gathering information about the curriculum
relevance is concerned, none of these institutes have any
formal mechanism. But the committees of the Technical
Examination Board of all the States invite people from
industry as experts in the committees. The Technical Teach-
er Training Institute, Bhopal, periodically does some survey
work in the western region regarding curriculum relevance.

Consultancy and testing services are permitted by
the Gujarat Government hence GPA is in a better position
as far the facilities’ utilisation for the community is
concerned. Production-cum-training centres exist at GPA and
at SPB. This is found weak in case of GWPB.
The advisory committee is highly involved in the case of SPB. The GPJA advisory committee meets twice in a year and is effective in a restricted sense only. GWPB does not have advisory committee. Hence the rating can be done for SPB, GPJA and GWPB as 1, 2 and 3 respectively.

Concern for under privileged students

All three institutes provide scholarships and free ship to meritorious students. The book bank facilities are extended to 25% students on role in each class in GPJA and GWPB.

GPJA has reservation of seats- 7% for scheduled Caste, 13% Scheduled Tribes, 10% Barri Commission, 4% physically handicap and 1% for defence personnel. In case of GWPB, 15% seats are reserved for scheduled caste and 18% 18% for scheduled tribe. In case of SPB no such reservation is made. The rating can be done as GPJA, GWPB and SPB as 1, 2 and 3 respectively.

Proactive role

"Whether the institution merely reacts to the environment or it proacts with the environment so that it is also able to change the environment to some extent" Prof. Pareek (1981) defines the proactive role of organization. One precaution to be taken that needs is that an organization should insulate itself against under influence from outside while keeping itself open to healthy influences.
CPGA and SPB provide information regarding their courses through public platforms like the Lions Club, Rotary Club, Woman Economic Development Corporation etc. All the three organisations keep in touch with the high schools students. CPGA supplies all the information to the students who have passed out for starting their small industries, similarly projects and surveying of rural areas are also taken by architecture and commerce departments regularly. Hence now rating will be CPGA as 1, GMPE as 2 and SPB as 3.

The composite rating will come out to be CPGA, GMPE and SPB as 1, 2 and 3 respectively. The table 6.9 and 6.10 give the rating taken from the forms.

Table 6.9

Future Capabilities

<table>
<thead>
<tr>
<th></th>
<th>CPGA</th>
<th>GMPE</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Social Awareness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Marketing sensitivity</td>
<td>3.30</td>
<td>2.04</td>
<td>2.52</td>
</tr>
<tr>
<td>2. Concern for under privileged student</td>
<td>3.60</td>
<td>2.49</td>
<td>3.25</td>
</tr>
<tr>
<td>3. Proactive role</td>
<td>4.10</td>
<td>4.10</td>
<td>3.66</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.60</td>
<td>2.87</td>
<td>3.14</td>
</tr>
</tbody>
</table>

B) Corporate Image

<table>
<thead>
<tr>
<th></th>
<th>CPGA</th>
<th>GMPE</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Academic &amp; professional standing</td>
<td>3.70</td>
<td>3.96</td>
<td>2.90</td>
</tr>
<tr>
<td>2. Public standing</td>
<td>3.85</td>
<td>3.3</td>
<td>2.37</td>
</tr>
<tr>
<td>Average rating</td>
<td>3.77</td>
<td>3.63</td>
<td>2.63</td>
</tr>
</tbody>
</table>
C) Public Responsibilities

<table>
<thead>
<tr>
<th></th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compliance with rules</td>
<td>3.00</td>
<td>4.57</td>
<td>4.60</td>
</tr>
<tr>
<td>2. Social obligation</td>
<td>2.70</td>
<td>2.00</td>
<td>2.87</td>
</tr>
<tr>
<td>Average rating</td>
<td>2.85</td>
<td>3.28</td>
<td>3.68</td>
</tr>
<tr>
<td>Composite rating</td>
<td>3.40</td>
<td>3.26</td>
<td>3.20</td>
</tr>
</tbody>
</table>

Table 6.10

Future Capability Development (Practical rating)

<table>
<thead>
<tr>
<th></th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social awareness</td>
<td>3.60</td>
<td>2.87</td>
<td>3.14</td>
</tr>
<tr>
<td>2. Corporate image</td>
<td>3.77</td>
<td>3.63</td>
<td>2.63</td>
</tr>
<tr>
<td>3. Public responsibilities</td>
<td>2.85</td>
<td>3.28</td>
<td>3.68</td>
</tr>
<tr>
<td>Composite rating</td>
<td>3.40</td>
<td>3.26</td>
<td>3.20</td>
</tr>
</tbody>
</table>

Corporate Image

Academic & Professional standing

The number of applications received by the polytechnic for admission is approximately three times more than the number of seats in all the polytechnics. When the students securing admissions is compared, there is no competition for GWPB and SPB as they are only one in the State. GPGA has to stand in competition because of two girls polytechnic in the state and four girls wing in general polytechnics conducting the same courses. GPGA had uptil now secured the 1st rank in almost all diploma and certificate courses examination.

Every year GPGA participates in the do-it-yourself exhibition and secures awards for staff and students
performances. In 1978 it had organised a state level do-it-
yourself exhibition. In case of GWPB and SPB no such facili-
ties are available to staff and students. Few students of
GPGA get international recognition for their innovative
activities.

In GPGA two staff members have written books. Five
staff members have contributed papers to professional jour-
nals. No such case is reported at GWPB and SPB. GPGA alone
takes up consultancy work. They receive 2-3 projects every
year. There are six faculty members who are represented in
state level academic bodies and national level academic &
professional bodies. From SPB one person was involved in
state/national level representation, GWPB has very little
representation in state level bodies (only one) and no
representation at the national level.

A good amount of work in the field of instructional
materials is being done by GPGA with the collaboration of
TTTI, Bhopal. GWPB also does some work with TTTI, while
SPB has not gone in this field. Fabrication of equipment is
done under production centre for exhibition purpose at GPGA
(on an average one per year). SPB and GWPB do not have this
activity.

Four people from GPGA are trained at TTTI for 1½ year
in education technology. 10 to 12 faculty members are sent
for summer schools every year. GPGA also sends faculty for
training to TTTI. This is the weak link in SPB.
GPFA has in-plant training for students in all its diploma courses. Placement is done in the industry by the polytechnic faculty. One senior staff member is kept as a placement officer for this purpose, as well as guiding for campus interviews. Employees come and select students regularly. SPB and GWPB do not have training in their courses, however SPB provides career guidance and arranges campus interviews. There is a good collaboration of GPFA with other institutes like Institution of Engineers, Food Craft Institute, Solar Energy Chapter (Gujarat), Study Circle etc. for project purposes. There are 34 industrial and commercial houses with whom GPFA has direct liaison. SPB has collaborations with 5-6 industries while GWPB has none. Hence the average rating can be like GPFA, SPB and GWPB as 1, 2 and 3 respectively.

Public Standing

Staff representing in public bodies is highest in GPFA, followed by SPB. Professional experts visit both, GPFA and SPB. As far as awards earned by the staff and students at national and international level are concerned, five of the staff and one student from GPFA have got national and international awards. Other institutes had not mentioned such information. Hence the composite rating for the corporate reputation can be done as GPFA, SPB and GWPB as 1, 2 and 3 respectively.
Public Responsibilities

Since an institution is a public agency, the behaviour of faculty and students should have a high standard of public responsibility.

1) Compliance with Rules and Regulations - GPGA detains 1% of students approximately every year from appearing in examinations due to shortage of attendance. Fine procedure is mainly operative in the library. No case of rustication of students has been reported. In case of SPB the general compliance with rules and regulations is done very strictly. GWPB also maintains discipline among the students.

This factor, in case of staff members, GPGA and GWPB is found weak as any extreme action for breach of rules is not possible in government institution.

Acceptance of social obligations

GPGA staff and students participate in Blood Donation programmes and got the award for the highest female donors of blood from one institution. Similar activity exists in GWPB and SPB.

GPGA is involved in rural upliftment programmes, and undertake surveys and project work. SPB and GWPB are not involved in rural programmes. However they are involved in the N.S.S. (National Social Service). GWPB in particular is involved with UNICEF projects. Hence the performance rating can be done as GWPB, GPGA and SPB as 1, 2 and 3 respectively. The theoretical ratings are given in Table 6.11.
<table>
<thead>
<tr>
<th></th>
<th>Social Awareness</th>
<th>GPA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Composite rating: GPA = 1.33, GWPB = 2, SPB = 2.66

If table 6.10 and 6.11 are compared, the difference in the theoretical and practical model is quite contrasting in GPA. The faculty feel that still lots of work can be done.

Process Mechanism

1) Contextual Process Mechanism

The effect of process mechanism on the performance of individual institute will be dealt with. The contextual process mechanism has three components.

A) Identification Process Mechanism

Ahmedabad and Bhopal were the locations decided upon by the state governments as both are capital cities. The Society of Sacred Heart started the SPB in Bombay as they thought it was the most prominent place for women's education.

In case of GWPB and GPA, funds came from the central and state governments. Since the education imparted by the
Government is free of cost, no other source of money collection was thought of. SPB had mobilized its resources through donations from the Somali group of industries and state government grants. They collected money through fees from students. GPSCA and GWPB were supported by state and central governments, while SPB got the support of industry and the community.

B) Culture Creation

Recruitment of the staff was done by the state public service commission in case of GWPB and GPSCA, while SPB recruited its staff through the principal. Hence culture creation was found personalised in case of SPB. In case of GPSCA a majority of staff was selected from industry and commercial houses. High academic qualifications were insisted upon. It resulted in delay in filling up the posts. Moreover no mechanism of acculturation was used. This resulted in an intelligent group with high potential but having no commitment. In case of SPB also commitment is found quite weak mechanism. They diluted experience and qualification and got the people fast, but people left fast also. There is a high turnover of staff every year which indicate the lack of commitment. Lastly GWPB could fill up the posts by diluting qualification and experience but people remained there without commitment as better openings were not available.

A redefinition of mission took place in case of GPSCA, when they introduced vocational courses in 1970, in addition
of the technical courses already being conducted.

C) Boundary Management Mechanism

Boundary management is connected with enlargement, shrinkage and maintenance of boundary. GPGA started with three full time diploma courses. It now has one post-diploma, four diploma and six certificate courses. This is the case of enlargement of boundary. It was basically started for full time diploma courses but in 1970 redefinition of mission took place and vocational courses were started and they are increasing gradually.

Hence the identity building which took place is of the form of technical institute to technical-cum-vocational institute. In case of GWFB, four diploma courses were started initially. Today too, it continues with the same four full time diploma courses. This is a case of maintenance of boundary. It could built up an identity as a women's polytechnic catering exclusively to the need of clients. In the case of SPB, it started with 31 full time/part time diploma and certificate courses. Within 5 years the courses were reduced from 31 to 27; this is the case of shrinkage of boundary. The polytechnic is well known for its vocational course in the country.

The composite rating comes out for GPGA, GWFB and SPB as 1, 2 and 3 respectively.
S) Evolution Process Mechanism

A) Instructional process mechanism

The GPA and GWPB were selected as models for diploma courses, while SPB started as a model for certificate courses, both full time and part time. GPA and GWPB have full time courses. The structure in all polytechnics if found to be the same. All are adopting discipline wise departments formation. All the institutions have a head of the department, senior lecturers, junior lecturers and instructors. The mechanism is strong but not effective because probably the commitment in faculty is weak.

B) Self renewal process mechanism

Decision making process involves, upto some extent, the committees systems following the American pattern. However major decisions come from governments in case of GPA and GWPB while SPB principal has more freedom for taking decision. In all the cases principals are deeply involved in the decision making but the highest involvement is in SPB case. Heads of the departments were also found involving in making decision in GPA and GWPB.

Voice mechanism appeared in the form of association of teachers in case of GPA and GWPB. The impact of it is negative in GWPB while for GPA it is both negative and positive. It is negative in that general discipline standard is disturbed and the positive effect is that they succeeded in getting the same scales and status as that of the staff.
of other polytechnics. Hence average rating can be done as GPA, GWB and SPB as 1, 2 and 3 respectively.

3) Institutionalisation Process Mechanism

A) Environment Interface Mechanism

Leadership pattern, research and dialogue are considered as the component of this mechanism. SPB started with a full time principal. For 3 years Mrs. Sukhadia was managing the institution's affairs well. She commanded respect from the staff as well as from the society. Mrs. Sukhadia herself did not have a technical background, as a result she could guide the direction of development in vocational field than in technical areas. Since last four years Mrs. Y. de Souza is heading the institute. She was working as head of the department for the Diploma course in Travel & Tourism. Hence the leader could emerge from the institute itself. GPA had part time principals who had no experience of women's education and also had additional duties. Shri Pandit could not spend the grant for facilities like equipments, amenities etc. hence the money lapsed in the plan period. The negative effect can be seen from the fact even state government had cut down the grant for subsequent years. Shri Bhatt was a person of rules and regulation but Shri Buxi was a resourceful person. He mobilized the resources and started spending grants on equipment and facilities. After 9 years of its existence GPA got a full time principal selected through the public service commission. The lady was from industry and had a
technical background. No person could come up from the institute. Since then the institute had spent time and energy for quality improvement in general and for inculcating creativity amongst the students in particular and, among the staff. The number of courses were doubled in this decade. SPB had a part time principal for 13 years. It also had the same fate as that of OPGA. Since the last five years Mrs. R. Srivastava is heading the polytechnic. She was selected by the public service commission. She has a science background and taught in a science college. Here also no leadership could emerge from the polytechnic. Thus the SPB had a greater stability of leadership and could give a positive impact in the development of the polytechnic. OPGA could get a technical personnel after 9 years. In case of SPB this mechanism is not very powerful.

As far as generation of knowledge is concerned, few survey reports, case studies and seminars are arranged in OPGA. Only one report was prepared by SPB and none by GWPB. Surveys had helped in planning new courses to some extent in OPGA, while SPB report are of purely and academic nature.

The linkage of cliental need is found to be strongest in SPB. But OPGA has a good relationship with the industry. In GWPB, both the components are quite weak.

2) Diffusion of Innovation Mechanism:

The influence of the polytechnic on environment is through its courses. SPB had succeeded in playing a proactive role. When the rush of the students at the time admission
was examined, it was found that after medical and engineering college, third preference goes to SPB in order of merit. This is the effect of a polytechnic on the community.

In case of GPGA, the admission percentage is always higher than in other polytechnics. It is sometimes higher than some of the engineering college merit lists. People feel reluctant to send their sons to polytechnics but they feel proud in sending their daughters to the same. This is the influence created by the polytechnic on the society. GWPB's secretarial practice course has a high demand.

Dissemination of knowledge had taken place through centre-periphery model in the SPB and GPGA, Schools, vocational centres, industrial training institutes and many more people were responsible for utilising the knowledge. The effect has a positive impact. GWPB has lesser effect of this mechanism.

The transfer of knowledge took place through consultancy, testing, production centre schemes in GPGA, while in SPB it took place through production centre and private practice. GWPB found it difficult to develop this mechanism.

In value changing system GWPB had adopted passive recipient position while SPB and GPGA have adopted the active agent role in major issues where the value system is changing.

INSTITUTION BUILDING STATUS INDEX:

An Institution Building Model is designed for the measurement of IB Status Index. The figure shows $\frac{1}{2}$
$d_3, d_4, d_5, d_6$ are the performance factors through the process mechanisms. Records and documents are analysed and rating is done. The alpha values refer to this analysis which is termed as theoretical analysis. The data was collected through questionnaire and analysed. Hence all feed back values refer to data analysis which is termed as practical field analysis in the study. $X_1, X_2, X_3, X_4, X_5$ and $X_6$ are the feed backs on the performance. The table gives the different values of $d$ and $X$.

Institution Building Status Index for all the polytechnics is calculated. This value will reflect the performance of the institute, influences of various process mechanisms and relation between the performance and process mechanism. In a non-profit organisation, the input and outputs are not linearly related. In case of educational institutes, the relationship between input and output is not well defined also. However, this index rating can be used for comparison of the different educational institutes.

The performance of these three institutions are visualised in two ways; data collection and record analyses. There is a linear relationship between IBSI and PI (Performance Index). Hence it can be generalised as follows:

$$\text{IBSI \ of \ PI}$$
INSTITUTION BUILDING STATUS INDEX MODEL

\[
IBSI = \frac{1}{2} \left[ \frac{\alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6 + \Delta}{6} \right]
\]

- **M1** - Contextual process mechanism
- **M2** - Evolution process mechanism
- **M3** - Institutionatisation process mechanism

FIG. 6.1
\[ IBSI = \frac{\dot{\alpha}_x^{1} + \dot{\alpha}_x^{2} + \dot{\alpha}_x^{3} + \dot{\alpha}_x^{4} + \dot{\alpha}_x^{5} + \dot{\alpha}_x^{6}}{6} + q \]

\[ M_1 - \text{Contextual Process Mechanism} \]

\[ M_2 - \text{Evolution Process Mechanism} \]

\[ M_3 - \text{Institutionalisation Process Mechanism} \]

Table 6.12

<table>
<thead>
<tr>
<th>Parameters</th>
<th>GPGA</th>
<th>GWPB</th>
<th>SPB</th>
</tr>
</thead>
<tbody>
<tr>
<td>( q )</td>
<td>1.5</td>
<td>2.16</td>
<td>2</td>
</tr>
<tr>
<td>( \dot{\alpha}_1 )</td>
<td>1.33</td>
<td>3</td>
<td>1.66</td>
</tr>
<tr>
<td>( \alpha_2 )</td>
<td>1.66</td>
<td>3</td>
<td>1.33</td>
</tr>
<tr>
<td>( \alpha_3 )</td>
<td>1.33</td>
<td>2</td>
<td>2.66</td>
</tr>
<tr>
<td>( \dot{\alpha}_4 = \frac{\dot{\alpha}_1 + \dot{\alpha}_2}{2} )</td>
<td>1.495</td>
<td>3</td>
<td>1.495</td>
</tr>
<tr>
<td>( \dot{\alpha}_5 = \frac{\dot{\alpha}_2 + \dot{\alpha}_3}{2} )</td>
<td>1.495</td>
<td>2.5</td>
<td>1.995</td>
</tr>
<tr>
<td>( \dot{\alpha}_6 = \frac{\dot{\alpha}_1 + \dot{\alpha}_8 + \dot{\alpha}_3}{3} )</td>
<td>1.44</td>
<td>2.66</td>
<td>1.330</td>
</tr>
<tr>
<td>( x_1 )</td>
<td>3.69</td>
<td>2.94</td>
<td>3.23</td>
</tr>
<tr>
<td>( x_2 )</td>
<td>3.75</td>
<td>2.36</td>
<td>2.58</td>
</tr>
<tr>
<td>( x_3 )</td>
<td>3.4</td>
<td>3.26</td>
<td>3.2</td>
</tr>
</tbody>
</table>
The IB Status index can be calculated from this data as

**GPNA**

\[
\text{IBSI} = \frac{d_1x_1 + d_2x_2 + d_3x_3 + d_4x_4 + d_5x_5 + d_6x_6}{6} + 2
\]

\[
= \frac{1.33x3.69 + 1.66x3.75 + 1.33x3.4 + 1.495x3.72 + 1.495x3.57}{6} + 1.44x3.61 + 1.5
\]

\[
= 3.45
\]

**GWFB**

\[
\text{IBSI} = \frac{3x2.94 + 3x2.36 + 2x3.26 + 3x2.65 + 2.5x2.32 + 2.66x2.35 + 2.16}{6}
\]

\[
= 4.80
\]

**SPB**

\[
\text{IBSI} = \frac{1.66x3.23 + 1.33x2.58 + 2.66x3.2 + 1.49x2.9 + 1.99x2.89}{6} + 1.88x3
\]

\[
= 3.66
\]
IBSI for GPGA, GWPB and SPB are 3.45, 4.8 and 3.66 respectively. The difference between GPGA and SPB is of only 0.2 in IBSI. GPGA could overcome SPB because of smaller context value. GPGA is rated 1.5 and SPB as 2, in the context rating. The actual performance front for SPB is rated as number one. This can be seen from the following formula.

\[
\text{Performance Index} = \frac{c_1X_1 + c_2X_2 + c_3X_3 + c_4X_4 + c_5X_5 + c_6X_6}{6}
\]

GPGA = 5.4
GWBP = 7.4
SPB = 5.3

In this equation context is missing. Hence GPGA and SPB can be rated as one and GWPB as two.