

Chapter

25

TECHNICAL PROPOSAL

A vision of the future is essential for renewal and betterment.

Learning Objective

To acquaint the learner with the purpose, characteristics and structure of a technical proposal and to help him acquire the ability to write all its parts, namely, executive summary, statement of the problem, objectives, technical plan, management plan, cost estimates and conclusion in an effective manner.

DEFINITION

When you join a business organisation, one thing that would strike you deeply is its constant concern for renewal, change, growth and expansion. In the face of cut-throat competition, rapid advancement in technology and globalisation of business, sustained improvement is a necessity, not a luxury. Inertia and resistance to change may threaten the very survival of an organisation.

To bring about improvement it is essential to review constantly the existing situation and to consider ways of effecting changes. Often the suggested changes are put forward in the form of proposals. As you may know, 'pro' means 'forth' and 'poser' means 'to place or put'. So any properly conceived idea, service, project or plan, whether theoretical or practical in nature, put forward for action or implementation is a proposal. It could be for carrying out research on a specified topic, writing of a book, manufacturing a product, setting up a plant, construction of a building or road, modifying a procedure or system, providing a facility, etc. *We may thus define a proposal as a written offer to undertake a project for designing, creating something new or for changing or modifying an existing procedure, method, system or structure within a specified period of time.*

There is, however, a basic difference between it and a report. The proposal aims at getting the approval or acceptance of what one wants to do whereas the latter usually deals with what one has already done.

TYPES

Various labels are applied to describe the type of a proposal. Some commonly used ones are: business proposal, research proposal, and technical proposal. These labels are used on the basis of the contents and objective of the proposal. If a proposal deals with any aspect of business, commerce or industry, it is called a **business proposal**. If it is concerned with a project requiring scientific enquiry or systematic investigation it is termed as a **research proposal**. When the objective of the proposal is to modify or create something requiring technical knowledge and skills, it is referred to as a **technical proposal**. Using the contents and objective criteria, several other names could be coined to label a proposal. However, there is another way of classifying it. A proposal is often prepared in response to a demand or an invitation from an authorised person within the organisation or from an outside agency such as a government department, a research organisation or a public or private undertaking. In such cases, usually the form in which the proposal is to be prepared is clearly indicated. The proposer has simply to supply the relevant particulars in the required sequence. Such a proposal is called a **solicited proposal**. Sometimes a person may on his own initiative prepare a proposal to solve a problem or to meet a specific need as perceived by him. A proposal thus prepared is termed as an **unsolicited proposal**.

CHARACTERISTICS

Whatever be the type, every proposal contains some essential information. It must tell the reader what you plan to do, how you will do it, how much time you will take in completing it and what it will cost. Since it is persuasive in nature, its presentation is based on what is termed as AIDA plan, like that of a good advertisement or an effective sales letter. First the ATTENTION (A) is caught towards what is being proposed, then an INTEREST (I) is created by pointing out how the plan would be executed. The next step is to generate a DESIRE (D) to accept by highlighting the benefits or advantages that would accrue and finally, an impulse for ACTION (A) is induced by persuasive reasoning. Persuasion is the art of influencing people to accept willingly an idea, a position or a course of action. You cannot win the bid merely by using appropriate language. A number of factors play a role in converting this selling tool into a contractual commitment. Some of the factors that may help you win the acceptance are given below:

- (i) Specify the scope clearly.
- (ii) Be realistic in your estimate of time, money, material and personnel required.
- (iii) Establish your credentials for accomplishing the task.
- (iv) Highlight the benefits that would accrue to the customer.
- (v) Keep the proposal short and precise.
- (vi) Use plain language.
- (vii) Ensure that the presentation and layout are neat and attractive.

STRUCTURE

The structure of a solicited proposal is determined by the person or organisation inviting it. In unsolicited proposal there is some choice both in respect of elements to be included and in their sequencing.

This choice is conditioned not only by the practice obtaining in the originating organisation but also that in vogue in the organisation to which the proposal is to be sent. However, some elements usually find a place in every proposal. These are described below.

1. Title Page

This page acts as a cover of the proposal and contains the following information: title, name and designation of the proposer, name of the organisation to which he belongs and the month and year of submission.

These four items are separated by space and stand out clearly on the page. Since it is the first item to be read, ensure that it is specific and provides a vivid picture of what you want to do.

2. Table of Contents

This is given when the proposal is long, running into 15 or more pages. The manner of preparing and the pattern of setting it is the same as that of a report, vide Chapter 17.

3. Executive Summary

This part summarises the entire proposal. Many readers need to have a preview of the proposal before beginning to go through the details. Obviously they do so only when the preview fulfills their initial expectation. Sometimes a summary is circulated independently for comments among the reviewers; so it should be self-contained. In fact, the entire proposal is condensed and given under the same subheadings as those in the main body.

4. Statement of the Problem

This part defines the need or the rationale, or states the problem to which the proposal addresses itself. To establish the need you may sometimes have to give a brief background history in terms of the work already done and its inadequacy in the present circumstances. In a research proposal, you may have to do this by conducting a survey of literature already available in the concerned field of study. An ability to handle this element successfully is crucial to the acceptance of your proposal because other elements such as objectives, methodology, etc., would logically flow from your problem statement.

5. Objectives

To what extent your proposal is going to solve the problem or effect the change should be clearly specified in this part. The objectives may be listed or stated in terms of short term and long term goals.

6. Technical Plan

Here describe in technical terms how the proposal would solve the problem you have stated earlier. Depending on the nature of your proposal, you may discuss the theoretical principles and analytical or experimental methods to be followed by you. Specify also the equipment, instruments and materials that would be needed and how you are going to utilise them to execute the proposed project. If your proposal is for the production of a new instrument, component, or part of a machine, justify the requirement, clearly indicating the technical or operational advantages that would accrue from it.

7. Management Plan

This part describes how you will accomplish the proposed task and clearly indicates the plan of action, facilities required, and the personnel who will execute the project. The plan of action should specify how the work will be divided, who will be responsible for each division and how much time would be taken to complete it. You may tabulate the time schedule for the activities matching it with person responsible for each job or task. Most of the proposals are not carried out alone. You are likely to need organisational support, especially in terms of facilities such as equipment, instruments, space and technical expertise. These should be stated to assure, the prospective customer, of the back-up available. Usually a number of persons are needed to execute a proposal. To establish their credentials, provide a brief description of their qualifications, achievements and experience. If the proposal is for the performance of an academic task, support the description with a list of publications by the personnel.

8. Cost Estimate

This section is the kingpin in the proposal. It should logically flow from the description you have given earlier. In a solicited proposal, the cost data required would be indicated. All you have to do is to supply the information. But in an unsolicited proposal you must show all the items of anticipated expenditure. Your estimate should be realistic and complete, and include the amount required for the following items: materials, equipment, computer time, lab testing, salaries of personnel, travel, office contingencies and infrastructural facilities such as land, building, water, electricity, etc.

9. Conclusion

It is an optional element; it may be given when the situation demands it. But if you have to include it in your proposal, state succinctly the significance of the project and highlight once again the benefits that would accrue from it. You may also mention here the implications that may arise from your work.

10. Sample

We now give a sample of an unsolicited proposal which was prepared by a university for the modernisation of its language laboratory facility. It is meant for submission to a funding agency.

**A Proposal
for
Modernisation of Language Laboratory Facility**

by
Kumar Arpit Kashiwal
Professor of English

**Savarkar Institute of Science & Technology
Shivajipuram-400030**

November 2009

Executive Summary

(i) Project title:	Modernisation of language laboratory facility												
(ii) Name and designation of the proposer:	Kumar Arpit Kashiwal, Professor of English												
(iii) Postal address of the proposer:	Department of Humanities, Savarkar Institute of Science & Technology, Shivajipuram-400030												
(iv) Duration of the project:	Six months												
(v) Amount of money required:	<table border="0"> <tr> <td>(a) Non-recurring</td> <td style="text-align: right;">Rs. 10.50 lakh</td> </tr> <tr> <td> (i) Hardware</td> <td style="text-align: right;">Rs. 01.20 lakh</td> </tr> <tr> <td> (ii) Software</td> <td style="text-align: right;">Rs. 00.50 lakh</td> </tr> <tr> <td>(b) Recurring</td> <td style="text-align: right;"><hr/></td> </tr> <tr> <td>Total</td> <td style="text-align: right;">Rs. 12.20 lakh</td> </tr> </table> <hr/>			(a) Non-recurring	Rs. 10.50 lakh	(i) Hardware	Rs. 01.20 lakh	(ii) Software	Rs. 00.50 lakh	(b) Recurring	<hr/>	Total	Rs. 12.20 lakh
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Total	Rs. 12.20 lakh												
(vi) Brief description:													

The existing language laboratory is based on spool system, which has become obsolete. The spares for replacement to keep it fully functional are not available. Hence, the entire equipment needs replacement. The main purpose of this proposal is to procure and install a new 10-booth language laboratory so that it continues to serve as an effective technological aid for enriching and strengthening the language courses designed to inculcate communication skills. The secondary purposes are: (a) to develop a centre for imparting in-service training in communication skills to institute employees as well as professionals; (b) to serve as a library for individual self-development; and (c) to provide a facility for promoting research in language learning problem. To realise these purposes, suitable software to meet the situation-specific needs would be produced. The technical expertise is available to take care of operation and maintenance of the laboratory. The Institute has well-qualified staff and a properly equipped Electronics Department. The Department of Humanities has trained secretarial and technical personnel besides faculty with experience in using language laboratory facility and producing instruction material. The existing room, which would be used for the new system as well, is air-conditioned and sound proof and equipped with suitable furniture for the installation of the equipment.

Statement of the Problem

The Institute has been conducting a number of programmes in science, engineering, and management, both at the first degree and higher degree levels. All these programmes require the development of an ability for effective technical and professional communication. To meet this requirement the Institute has been making efforts through formalisation.

classroom instruction and the organisation of co-curricular activities such as seminars, workshops, etc. In the past it has conducted communication workshops for human resource development both for the in-service staff of the Institute and professional organisations. It has also run communication workshops for faculty and for students to improve their presentation and discussion techniques. For effective development of the communication aspect of human resource, right from the inception of the Institute, language lab has been used successfully. But the present Connevans Mark II spool system that was used for this purpose has now become obsolete and requires replacement.

Objectives

The objective of this proposal is to procure and install a system which can meet the need for an effective technological aid for strengthening the language courses which form part of the Institute's programmes. Another purpose is to acquire a facility which can serve as an instrument for the executive development and training programmes of technical personnel and professionals from other organisations, besides functioning as a centre for research in language learning problems of the region. The lab would also serve as a library, providing a variety of material for self-improvement, thus encouraging learner-centred education.

Technical Plan

It is proposed to go in for a 10-booth lab system with a provision for expansion after ascertaining the response of, and analysing the feedback from, the users. The equipment and material required at present are listed below. The estimated cost and justification for each item is specified. The first two items relate to the acquisition of hardware and the last three to the development of software.

Equipment & Material	Estimated Cost (in lakhs)	Justification
(i) Ten student booths, each having a tape recorder and a head-set and teacher's remote control unit and master tape recorder	10.00	A reliable and easily operable system is required to serve the need for effective development of communication skills.
(ii) Spares & accessories	00.50	These are essential for keeping the lab operational.
(iii) Blank cassettes	00.10	These would be required for recording the new material.
(iv) Audio and Video instructional materials	00.60	These are required for use and support of lab technology.

(Contd)

(v) Books & Journals	00.50	For continuous updating of knowledge the access to latest books & journals is imperative.
Total	11.70	

Management Plan

The installation of the system would be done by the technical personnel of the company from which the equipment is bought. The technical staff of the Institute would take over the responsibility of operating and maintaining it after it starts functioning. One senior technical assistant and one junior technician who have been operating and maintaining the present lab would continue to look after the new system. The former has 15 years experience and the latter 3 years experience in this area. The supervision and management of lab activities and production of new teaching material would be done by the following faculty members:

- (i) Dr. C.K. Saraswat, Associate Professor of English
- (ii) Dr. Manohar Chopra, Lecturer in English

Dr. Saraswat has been Professor-in-charge of the language lab for the last five years and Dr. Chopra has been associated with him in teaching and developing lab material for the last three years. They have jointly published the following seven papers in reputed journals in the area of English language teaching.

- (i) The Notion of Communicative Competence.
- (ii) Communicative Approach to Language Teaching: Problems and Principles.
- (iii) The Use of Language Laboratory in Speech Training.
- (iv) Group Discussion in the Language lab: An Experiment.
- (v) Improving Communication Skills through the Language lab.
- (vi) Language lab as an Aid to Listening Comprehension.
- (vii) Promoting Learner-Centred Language Education.

The first two papers have been published in *The Journal of Applied Communication* published by the Association of English Studies, New Delhi and the last five in *English Language Learning* published by the International Association of Teachers of English as a Foreign Language, Sussex. They have also authored a book entitled *Improving Communication Skills through Language Laboratory* published by Modern Publishers Co. Ltd. New Delhi in May 2009.

So far as secretarial support is concerned, the present staff of the Department of Humanities would continue to provide for all lab activities.

Cost Estimate

A total sum of Rs. 11.70 lakhs is required for non-recurring expenditure. Out of this Rs. 10.50 lakhs is needed for hardware and Rs. 1.20 lakhs for software development.

The details of the items of expenditure are given earlier in the Technical Plan section. In addition an estimated sum of Rs. 0.50 lakh per annum is required for recurring expenditure. The break-up of this estimate is given below:

(i) Material required for maintenance	Rs. 0.10 lakh
(ii) Electricity	Rs. 0.05 lakh
(iii) Stationery and contingencies	Rs. 0.35 lakh
Total	<u>Rs. 0.50 lakh</u>

The sum for non-recurring expenditure is required for one year. From the second year onwards, it will be met with from the resources of the Institute.

Conclusion

The aim of technical education is human resource development in specific professional areas, of which communication is an important part. The acquisition of this facility would accelerate the process of training and would undoubtedly enrich professionally-oriented education.

Communication Core

A technical proposal is a written offer to undertake a project for designing/creating something new or for changing or modifying an existing procedure, method, system or structure. It may be solicited or unsolicited. A proposal is persuasive in nature and is based on AIDA plan, that is, catching attention, generating interest, inducing a desire and finally, prompting an action. It has a structure established by convention. Basically, it tells the reader what you plan to do, how you would do it, how much time you would take in completing it, and what it would cost.

REVIEW QUESTIONS

1. Define a technical proposal and distinguish it from a technical report, specially in terms of its approach and structure.
2. Write a note on the characteristic features of a technical proposal.
3. What strategies of persuasion should be used in writing a technical proposal?
4. What are the different ways of classifying a technical proposal? Which one do you consider to be the best? And why?

EXERCISES

1. Apex Management Consultants, 23 Prithviraj Road, New Delhi-110001 wish to run a four-week training programme in Professional Communication for junior executives of public limited

companies located in North India. As Senior Project Manager you have been asked to prepare a proposal for consideration by the Board of Directors. Inventing the necessary details, write a technical proposal for submission to the Managing Director.

2. Assume that you have decided to establish a manufacturing unit in your town and that you wish to avail of the loan facility under the self-employment scheme of the Govt. of India. Draft a technical proposal for the production of an item of your choice, seeking loan from the Regional Director of the Industrial Promotion Corporation of your State. Invent the details you consider necessary.
3. As the Public Relations Officer of Sunshine Food Products Ltd., Ramapuram, Chennai you have been asked to prepare a proposal for setting up a Cultural and Recreation Centre on the Company's factory premises at Madurai. The proposal is to be considered by the Board of Directors in its next meeting. Write this proposal for submission to the Managing Director of the company.
4. To rehabilitate the earthquake-affected people of the state, the Secretary, Department of Industries, Govt. of Maharashtra, Mumbai has invited proposals from the private sector organisations for setting up units to manufacture motor parts, cotton garments, electrical goods, soaps and detergent powders, etc. Assuming yourself to be the Commercial Manager, Diljeet Industries, Saki Naka, Mumbai, prepare a technical proposal for the manufacture of an item of your choice. Invent the necessary details.
5. Hindustan Transport Company Ltd., Aurangabad has decided to establish a computer centre to train its employees in using modern means of recording, storing, retrieving and transmitting information. You have recently been employed by the company to set up this centre and then to train its employees in using the computer facilities for day-to-day operations. Write a technical proposal, containing a comprehensive plan for setting up this centre and training the employees. The proposal is to be submitted to the Vice-President (Engineering).