

Technical Proposals

OBJECTIVES

You should study this chapter to know

- the definition, purpose, and types of technical proposals
- the characteristics and structural elements of technical proposals
- how proposals are evaluated, and thus how to write winning proposals

INTRODUCTION

Proposals are an important type of job-related writing because their acceptance can lead to significant operational improvements, new business, additional jobs, and safer working conditions. The planning, organizing, evaluating, and writing skills we have learned so far in the preceding chapters can be utilized for writing technical proposals as well. However, when preparing these longer messages, we may need to add some tasks to the familiar categories or pay special attention to tasks we are already familiar with. For example, besides analysing the purpose and the audience, the situation needs to be carefully studied to determine whether a proposal is necessary and which type would be the most appropriate.

In today's competitive business environment, it is a challenge to receive new orders, to get new customers, or to find new business partners. When a firm is considering several companies to outsource a major part of its operations to, it will evaluate the potential of these companies on the basis of their proposals to the firm, showcasing their suitability for the purpose. Hence, proposals have become a very essential way to get new orders and increase the sales of products. Proposals may include a bid on contract, or a business proposal to a government authority, another company, or organization.

Let us imagine a situation when one endeavours to set up a new laboratory in an institution and needs to seek the approval of the administration for the same. The approval may be for a requirement of a new room, purchase of equipment, or acquiring more manpower. Hence, the proposal should include the probable location of the laboratory, its functional strategies, its importance in the present infrastructure, its likely expenditures, etc. Certainly, some proposals must sell the ideas or projects they offer, but all proposals must sell the writer (or the writer's organization) as the one to do the project.

'There is only one way to get anybody to do anything. And that is by making the other person want to do it.'

—Dale Carnegie

DEFINITION AND PURPOSE

A proposal is an offer by one party to provide a product or service to another party in exchange for money. It is usually a sales presentation seeking to persuade the reader to accept the written plan for accomplishing a task. Proposals may be written to people within an organization, to an outside company, or to the government. In other words, proposals are written offers to solve a technical problem or to undertake a project of practical or theoretical nature. Consultants submit proposals to companies offering help to solve problems within a company, building contractors submit proposals to the government on some constructions

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'We agree that this is an innovative proposal. But we can't accept it as we've never seen such a proposal before.'

for the Public Works Department, reputed advertising agencies offer to publicize a product or an idea for a company, construction companies submit proposals to governments abroad to build everything from bridges to skyscrapers—the list is endless.

As said earlier, proposals, in general, aim to solve a problem, alter a procedure, find answers to questions, offer advice and training, or conduct research on a topic of interest to both parties.

However, proposals have varied purposes with a wide or narrow scope. Given below are a few examples to illustrate the diverse purposes of proposals:

- To construct parking slots, buildings, bridges, highways
- To sell property, such as buildings, machines, airplanes
- To survey areas for possible water sources
- To plan and construct airport baggage conveyor systems
- To modernize the office procedures of a company
- To train international managers for work in foreign countries
 - To conduct the basic research before developing an automobile factory in a foreign country
 - To improve engineering performance within a company

Proposals serve to review and improve existing products and services to meet the ever-increasing and complex requirements of today's highly competitive business environment.

Proposals serve to review and improve existing products and services to meet the ever-increasing and complex requirements of today's highly competitive business environment. They aim at providing new and sound ideas to accelerate the advancement of our society.

In the following sections, we will discuss the types, characteristics, elements, style and appearance, and evaluation of technical proposals.

TYPES

The two basic types of proposals are sales proposals and research proposals. Both these types may be either solicited or unsolicited.

Importance of Proposals

1. Proposals, like reports, are valuable records of information in an organization.
2. They act as an index of the company's growth or progress.
3. Successful proposals give financial returns to the organization.
4. They help promote various research activities that are vital for the individual, organization, or government.
5. Proposals attempt to win contracts for the company undertaking the project. Proposal writing develops certain favourable and useful skills such as communicative, persuasive, and organizational skills. It also enhances the power of estimation, judgement, and discrimination in the writer.

Sales proposals are also known as *business proposals*. They are sent outside the company to potential clients or customers. Sales proposals rarely duplicate one another in either structure or style. In fact, they often take quite different and creative directions like successful advertisements.

Research proposals are usually academic in nature and mostly solicited. Professors, or the institutions for which they work, may submit a proposal to obtain a grant in response to a request or announcement from the government or other agency. A research proposal may even appear in a foreign language. For example, a research proposal submitted by an academic institution in India to a multinational company in Germany may be in German. Whatever the research project, the basic content does not vary. All research proposals will contain the elements discussed later in this chapter.

An organization often knows in advance those individuals and corporations that are qualified to bid on a job or help solve a problem. Hence, requests may come via mail or, in the case of the government, via newspapers.

While preparing a *solicited proposal*, the company should remember that, in all likelihood, it will have many competitors bidding for the contract. To be successful at acquiring the contract, the company will not only have to present excellent reasons to the solicitor to follow its recommendations but will also have to try to overcome the resistance from its competitors, i.e., the company's proposal should have stronger and more powerful arguments than those of the others. So, it has to meticulously follow the proposal requirements of the solicitor regarding the problem, the required solution, specific work to be done or equipment to be installed, format of the proposal, deadlines, etc.

Similarly, when a company prepares an *unsolicited proposal*, it needs to convince the reader that it understands the receiver's problem and that it is qualified to solve the problem successfully.

CHARACTERISTICS

Technical proposals, whether they are sales proposals or research proposals, are a persuasive blend of information, organization, and reason. Essentially, technical proposals should

- Demonstrate to appropriate decisions makers that their needs would be met with
- Be more creative than other forms of professional writing
- Permit informality and personal approach in style to some extent
- Keep in view the customer's convenience, financial gain, and prestige

- Look neat and attractive
- Include summary, background, objective, description of the problem, methodology, and cost estimate
- Anticipate any possible reasons for rejection and provide suggestions for overcoming them
- Follow meticulously the requirements of the solicitor
- Contain certain or all elements of structure according to the purpose, usefulness, and requirements of the recipient's language
- Use plain, direct, and unambiguous expressions

Whether a proposal is long or short, simple or complicated, a writer can improve the chance of securing conviction by making sure that its contents answer the following questions:

- What do we propose to do?
- How do we propose to do it?
- What evidence can we propose to use that will actually get the desired results?
- What evidence can we present to show that ours is the best way to get the desired results?
- How can we demonstrate our ability to do what we propose to do?
- What evidence must we present to show that the cost will be acceptable and, perhaps, that we can meet a satisfactory time schedule?

In providing the information called for, it will be necessary to explain what methods we propose to use, to show that we have or will obtain the resources necessary to use these methods, and to offer enough information about costs to show that our estimates are realistic.

STRUCTURE OF PROPOSALS

Major business proposals on selling a company's services, expertise, equipment, or extensive installation facilities may use the structure discussed in this section. This structure may also be adapted for a research study within an academic body. Of course, only long, comprehensive proposals require most of or all these parts. Proposals on smaller projects may use only a few. For example, information required for a grant or sales contract of Rs 10,000,000 will undoubtedly be longer and more insightful than that for a research allowance of Rs 25,000. Therefore, the elements desirable for a specific proposal have to be chosen carefully.

Similar to the structure of reports, all proposals have three main divisions: prefatory parts, body of proposal, and supplementary parts. Depending upon the need and existing practice, we may choose the required elements from these parts for the proposal.

I. Prefatory parts

- Title page
- Letter of transmittal
- Draft contract
- Table of contents
- List of tables/figures
- Executive summary

II. Body of proposal

- Introduction
 - Problem
 - Need
 - Background
- Technical procedures
 - Methods and sources
 - Objectives or purpose
 - Scope and limitation
 - Plan of attack

- Managerial procedures
 - Sequence of activities
 - Equipment, facilities, products
- Cost estimate
- Conclusion
- Personnel qualifications

III. Supplementary parts

- Appendices
- References

Prefatory Parts

This segment gives the solicitor or recipient an overall idea about the proposal such as highlights and coverage. Special attention should be given to this segment, as it creates the first impression in the reader's mind. This segment can have the following parts.

Title page The title page of a proposal is similar to that of reports. Most organizations specify the information to be included in the title page, some even provide special forms that summarize basic administrative and fiscal data. The title page should include at least the title, the name of the person or company to whom the proposal is submitted, the name of the person submitting the proposal, and the date.

Letter of transmittal This is a cover letter that accompanies or is bound along with the proposal. Proposals submitted to government organizations may contain the letter of transmittal immediately after the title page. This cover letter includes a brief introductory, middle, and concluding paragraph. The topic and purpose are clearly mentioned in the introductory section of the letter. The middle section contains the proposal highlights and the concluding section motivates the recipient towards responding positively to the proposal.

Draft contract A draft contract is the rough draft of the contract prepared by the proposer. When the proposal is accepted, the original or rough draft may need changes in clauses such as terms of finance, duration of the project, and delivery schedule. Thus, the contract will be finalized and signed only after the proposal has been accepted.

Table of contents Brief proposals do not require a table of contents. But if the proposal is long then a table of contents is essential.

List of tables and figures This list enables the reader to easily locate visual aids, if any, quickly.

Executive summary Even brief proposals should have an executive summary. Seeking to gain a quick review, some evaluators will initially read only this summary. Hence, the executive summary should be a concise version of the detailed proposal. It should provide a brief background, telling the reader the need for taking up this project, and summarize the objectives, how they will be met, what procedures will be adopted, and also the outcome of the project. Budget figures are frequently omitted because proposal summaries or abstracts may receive wide distribution. The summary generally ends with a re-emphasis of the proposal's strengths. The length of the summary is usually between 100 and 300 words depending on the complexity of the proposal. Many proposal consultants believe that the executive summary is the most important part of a proposal. It should create a positive impact, so as to induce the reader to read more of the proposal.

The importance of an effectively written executive summary cannot be underestimated. Many consultants believe that a project is accepted or rejected solely based on the impression created by the summary.

Body of the Proposal

The main body of a technical proposal consists of the following five sections: introduction, technical section, management section, cost estimate, and conclusion.

Introduction

Problem and need The problem statement clearly specifies what it intends to investigate. It should elaborate the existing facilities/procedure and the shortcomings arising out of the same. It should explain why the problem exists and what benefits will come from the proposed research.

Background This includes information such as the following:

- Previous work completed on identical or related projects
- Literature reviews on the subject, particularly the proposer's evaluation of them
- Statements showing how the proposal will build on the already completed projects and research

Purpose The objective or purpose of the proposal should be stated clearly. It is often stated in infinitive form, for example:

- To offer the supply of forty aircraft engines to Aviation Supplier Corporation
- To provide the required training for the newly employed graduates

Scope This part defines the boundaries of the project. For example, the proposal on a research study should clearly specify whether it will study one or more areas of a community, company, department, or a particular problem. The proposal will specify which topics will be outside its scope. The writer of the proposal has an ethical and legal obligation to clarify the limits of his/her responsibility to the client.

Limitations This section describes the restrictions over which the proposer has no control, such as the non-availability of some classified information.

Project team/personnel Even some short proposals include a listing of the individuals who will work on the project, including project director/coordinator. In long proposals, such information is a must including a brief résumé of each individual (educational qualifications, professional achievements, experience in the area, publications in the relevant field, etc.).

Methods and sources The reader should be informed about the methods and sources that would be used to collect the required statistical data for the project. It may also include a discussion on the reliability of the sources from which the required information or data would be collected. For example, a proposal offering software consultancy services to some other organizations may include a discussion about the journals that have been consulted, the personnel who has been interviewed to understand the existing problem, and also the authorities with whom the legal issues have been discussed.

Technical section

Procedures Here, a brief discussion on how the technical requirements of the reader will be met should be given. This discussion incorporates the following aspects:



I need this proposal approved. Get the best designer in town to draw the blue prints!

the one that has been chosen, justifying the reasons for selecting it.

Management section

Sequence of activities This section pertains to managing the job in question. By means of a Gantt chart or milestone chart, this section presents to the client a clear picture of the phases of activities of the project and how long each phase will take. This section not only guides the reader but also facilitates a systematic approach to the execution of the project. The charts will also show the reader how the bidder is adequately planned and prepared for the various activities.

Equipment, facilities, and products This section explains about the existing equipment, facilities, etc., and also the additional facilities that may be needed to carry out the project. It may also elaborate upon the infrastructure by listing all the available equipment, products, facilities, etc. In addition, a detailed list can be included mentioning all those things that are necessary for the job.

Human resources This section presents the details of the human resources requirement to complete the project. It also elaborates the technical expertise the different personnel have to accomplish the project. The team organization can also be elaborated upon here, mentioning the names of the chief coordinator, co-investigators, etc. The company profile can also be included in this section. The proposer also provides the human resources requirement, which should include a detailed list of number of persons and also the type of expertise they should possess.

Budget/cost estimate

The budget or cost section is mandatory for all proposals. This provides a breakdown of all estimated costs for the project. It should include such items as materials and supplies, salaries, travel, duplicating, consumable items, etc. Some budget sections may be in tabular form or even in the form of visual aid. It is customary to include a budget justification section, in paragraph form, stating the various items of expenses the project would incur and also the potential sources of funding for the project. This would be a further rationale for the financial figures. The recipient will appreciate the bidder's acknowledging responsibility for potential cost overruns and funding shortfalls and the thorough preparation in presenting this estimate.

Conclusion

This last section provides a final opportunity for the provider to re-emphasize and persuade the recipient that they have all the resources in terms of material, expertise, and enthusiasm to accomplish the project. No new ideas should be added here and this section should be very brief, maybe one paragraph.

Supplementary Parts

Appendices, as in formal reports, are optional in proposals as well. Visuals (maps or graphs) and some pertinent letters of support and endorsement can be added. But when in doubt it is better to leave out appendices.

References give the list of sources that have been used or quoted in the proposal. References are usually a part of research proposals that require documentation.

STYLE AND APPEARANCE

All techniques and principles that are applicable to technical communication and report writing are equally applicable to technical proposals, whether they are for research grants or for a sales contract.

It must be borne in mind that the physical appearance of the proposal makes an important non-verbal impression. As proposals are evaluated immediately in terms of general appearance, neatness, specific appearance of the table of contents, list of figures, title page, consistency of style, completeness, and professionalism, it is very essential to spend a considerable amount of time in refining these aspects. Each item must be checked and rechecked. It would also help to adopt appropriate means of visual persuasion. Company logos are often found on each page. Colour and visual aids are used to add effectiveness. For example, a marketing executive's major, unsolicited, successful proposal can have on its cover an accurate sketch of the prospective customer's buildings. The proposal should be attractively bound and protected by a plastic cover.

EVALUATION OF PROPOSALS

It might seem that in a chapter on writing proposals, a section on evaluation would be inappropriate, but generally writers produce better products if they understand how their work will be judged.

By giving a scale of values to the following set of questions, the reader can make a point comparison between competing proposals:

1. Understanding of purposes, objectives, and tasks—thirty points.
 - (a) Does the bidder demonstrate clear understanding and acceptance of the requirements presented in the RFP (request for proposal)?
 - (b) Are the tasks outlined in the proposal clear and well defined?
 - (c) Are there important omissions in the specified tasks?

On a scale of thirty points please assign a rating to this area.
2. Technical quality of methods proposed—thirty points.
 - (a) Are sufficient time and resources specified to accomplish the quality outlined in the proposal?
 - (b) Does the proposer emphasize quality as an important criterion when presenting methods?

- (c) Will the quality of the proposed methods be monitored throughout the contract period?
- (d) Is this monitoring sufficient to ensure quality?
- On a scale of thirty points please assign a rating to this area.
3. Quality of management plan and planning—ten points.
- (a) Has a management plan been designed to ensure receipt of materials at certain specified times?
- (b) Does the proposal clearly identify working relationships within the contractor's staff and with this agency's staff?
- (c) Is sufficient technical management assigned to the task to ensure production and quality of output?
- (d) Will sufficient information be available to this agency to permit analysis of cost and effectiveness?

On a scale of ten points please assign a rating to this area.

4. Qualification of staff—twenty points.
- (a) Have individuals to whom the task is assigned had prior experience in the required technical areas?
- (b) Have key personnel been assigned to the project for a substantial time?
- (c) Have project directors and those assigned management roles been in similar management positions before?
- (d) Is there sufficient depth in the staff to provide backup and overload capabilities?

On a scale of twenty points please assign a rating to this area.

5. Corporate capability and experience—ten points.
- (a) Has the organization had previous experience in planning and managing efforts of this type?
- (b) Has the organization previously managed projects of this size and complexity?
- (c) Is the organization of sufficient size and stability to undertake the responsibility called for?
- (d) Is there any 'track record' of performance available, indicating consistent meeting of schedules with quality output within fiscal limits, or the inverse?

On a scale of ten points please assign a rating to this area.

Although only one of the preceding questions deals directly with expenses, costs are a primary consideration. In commercial proposals, the first consideration is cost, followed by performance, reliability, economy of operation, and early delivery of the product.

Beyond these considerations are many others, but one of the most important is the tone of the proposal. Those addressed are extremely concerned that the responsible officials of the proposing organization are genuinely interested in doing the work and are committed to providing complete satisfaction, even beyond normal guarantees. In other words, reviewers are likely to reject a proposal if they believe that they would have to put up with questionable practices—or with indifference.

Many proposals turn out to be unsuccessful because of the following reasons:

- Questionable project design
- Inadequate explanation of the research
- Lack of experience of the investigator

Other major reasons include vague experimental purpose and poorly prepared knowledge of the literature. The important point to note is that most of these reasons derive from the presentation

of the material, that is, from how the proposals were written rather than from the nature of the research. In other words, if the investigators had prepared their proposals more carefully, they might have been successful, and in the world of research and grants as well as in business, a successful proposal often means the difference between working and looking for another job.

Exhibits 14.1 and 14.2 will give you a fair idea of how to write well-structured, persuasive proposals.

EXHIBIT 14.1 Sample proposal

Project Proposal

On

**DEVELOPING MULTIMEDIA STRATEGIES
FOR EFFECTIVE COMMUNICATION**

Submitted to


DEPARTMENT OF SCIENCE AND TECHNOLOGY
Rajasthan

By

T. Krantikiran	1997B4A3920	V. Ravindra	1998A6C6489
Bina Shetty	1998A2PS401	C. Srividya	1998A2PS822

Under the guidance of

Dr. MEENAKSHI RAMAN
Languages Group



Birla Institute of Technology & Science
Pilani
August, 2015

STUDENT PROJECT PROGRAMME

1. **Title of the project:** Developing Multimedia Strategies for Effective Communication
2. **Name of the students:**

Name	ID No.
(i) T. Krantikiran	1997B4A3920
(ii) V. Ravindra	1998A6C6489
(iii) Bina Shetty	1998A2PS401
(iv) C. Srividya	1998A2PS822
3. **Class/Year of the students:** (i) 4th year.
4. **a. Name of the Project Guide**
b. Experience of the Guide: (ii), (iii), (iv) 3rd year.
 Dr. Meenaskhi Raman, Assistant Professor
 Teaching at various levels for the past 14 years; taken up projects in multimedia courseware development
- c. Address of the Guide:**
 Dr. Meenakshi Raman
 Languages Group
 Faculty Division I
 BITS, Pilani-333031
 Telephone:
 Office: 45073-Extn. 307
 Residence: 42238/44736
- d. Broad Area/Field of the Guide:** Communication.
5. **a. Name of the institution:** Birla Institute of Technology and Science
b. Address of the institution: BITS, Pilani
 Rajasthan - 333031
 Ph. 45073 - 307
6. **a. Project Summary**

This project aims at developing through multimedia certain strategies for effective communication, which is vital for the growth of an individual as well as the society. Effective communication strategies, if developed through multimedia, can be easily grasped even by the lower strata of the society. Moreover, these strategies may prove to be indispensable for education institutions and professional organizations of any kind.

This multimedia package would incorporate strategies for both verbal and non-verbal communication. The main focus would be on the significant aspects of oral communication such as body language, voice modulation and audience awareness, and the illustrative aspect of written communication namely, graphic aids.

The package would not only be user-friendly but also be informative, thus enabling the users to develop better communication skills.

b. Technical details of the project

Since effective communication is indispensable for the progress of any society, the project will focus on developing strategies for the same. Though the Internet and other audio-visual aids like audio and video cassettes, etc. throw some light on techniques for developing language skills, they do not deal in detail with the various aspects of communication.

Even though there are many aspects of communication, the project would limit itself only to certain aspects of oral and written communication. The project would require the following:

Software Requirements

- Multimedia development kit
- Adobe Photoshop

Hardware Requirements

- A personal computer with Pentium II processor
- Multimedia kit (speakers, sound card, floppy, CD-ROM drive)
- 32 MB RAM
- Internet connection (preferable for research and analysis of the existing products and to download latest software to compress audio and video files, e.g. MP3 format)
- Recent publications (literature) on multimedia

7. Introduction of the project

a & b. Definition and origin of the proposal

The development of any society largely depends on the interaction among its people. This interaction is essential for the ideas, facts, feelings, and courses of action to be transmitted and interchanged. But without adequate communication skills, it would be difficult for the people to interact effectively.

In a country like ours where illiteracy is still prevalent among the lower strata of many societies, oral and visual communication can greatly help the flow of interaction in a society. To achieve effectiveness in communication, people need to follow certain strategies. There is no doubt that these strategies can be developed in various ways.

We feel that multimedia is the most effective of all and hence designing effective communication strategies through this medium would be of great help to the students, professionals, and laymen. For example, strategies for effectively using the various means of body language such as posture, gesture, eye contact, etc. would certainly prove to be of immense help for all these categories of people. They can use each of these means of non-verbal communication according to the situation in which they communicate. For instance, people working in an organization may have to deliver many short or long presentations or participate in meetings, etc. during their professional career; students may have to give several presentations such as seminars and talks, or participate in group discussions and interviews during their academic career; laymen need to communicate their ideas, decisions, etc. to others. Hence developing effective communication strategies is vital for the overall progress of any society.

c. Objective

This project aims at developing multimedia strategies for effective communication (both verbal and non-verbal). It would mainly focus on:

1. All aspects of body language, voice modulation, and audience awareness pertaining to non-verbal communication

2. Graphic aids, which are vital for both oral and written communication

d. Work plan

For effective scheduling of time among students and for convenience, the project will be split into two broad phases of four months each. In the first phase, the package development will focus on the written form of verbal communication, and certain aspects of non-verbal communication such as personal appearance and posture, gestures. The various patterns of communication within an organization will also be dealt with.

In the second phase, the oral aspect of verbal communication, facial expression, eye contact, and space distancing of non-verbal communication will be developed. Management of information within the organization, audio-visual aids on business correspondence, reports, group discussion, meetings, seminars, and conferences will also be dealt with.

e. Methodology

- Literature survey
- Collection of materials
- Scripting
- Developing strategies
- Designing strategies through multimedia

f. & g. Organization of work element and time schedule
 Phase I 4 months (approximately)
 Phase II 4 months (approximately)
 as per work plan

8. Details of facilities to be provided by the institution

- Library
- Computer hardware
- Software for the use of multimedia
- Recording
- Internet access

9. Budget Estimate:

1. Minor Equipment

1. Consumables	Rs. 8,000.00
2. Report writing	Rs. 1,000.00
3. Contingency & other costs	Rs. 1,000.00
Total	Rs. 10,000.00

10. Utilization of the outcome of the project

The multimedia package developed in this project will be informative as well as user-friendly. It will not only create an awareness among the public about the various aspects of effective communication, but also enable them to modify and develop their communication strategies. This in turn will prove to be beneficial for the progress of the society at large.

EXHIBIT 14.2 Sample proposal (with covering letter)

Multi-modal Gymnasium

Varanasi-221004

March 14, 2002

Mr Anuj Sharma
Chairman
Diesel Locomotive Works
Varanasi-221004

Re: Project proposal for setting up of a multi-modal gymnasium in DLW

Dear sir

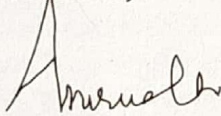
The attached document, 'Proposal for Setting Up of a Multi-modal Gymnasium in DLW Institute', outlines our project for a modern gym. Reduced man-days and associated costs due to medical problems of the DLW staff and officers has been a long-standing issue. Our proposal aims to suggest a remedy for these problems. The project is also expected to satisfy the long-pending demand of DLW staff for setting up of a gymnasium with multifarious facilities.

This proposal provides you with an overview of the proposed plan, an outline of the work plan along with the cost estimate, and the suggested plan of action for utilization.

This proposal also explores the alternative facilities provided and the utility of each.

The authenticity of the proposal is supported by the fact that many leading organizations in the world including Intel, IBM, GE, TATA, and others have implemented this concept successfully. If you have any questions or concern about our proposal, please feel free to contact me over my mobile 9830038796 or by e-mail at anirudh@vsnl.com.

Yours truly



Anirudh Gautam
Dy Chief Personnel Officer
DLW

Enclosure: proposal for multi-modal gymnasium

PROJECT PROPOSAL

ON

SETTING UP OF A MULTI-MODAL GYMNASIUM IN DLW

SUBMITTED TO

CHAIRMAN
DLW

BY

ANIRUDH GAUTAM
DY CHIEF PERSONNEL OFFICER/G

DIESEL LOCOMOTIVE WORKS
VARANASI 221004 (UP)

March 2002

STAFF WELFARE PROGRAM

Draft Contract

Project Title	SETTING UP OF A MULTI-MODAL GYMNASIUM IN DLW INSTITUTE
Name & designation of proposer Officer	Anirudh Gautam, Dy Chief Personnel
Postal address of the proposer	DLW, Manuadih, Varanasi
Name of the institute in which the gymnasium is proposed to be set up	North DLW Institute
Time required for commencement of the project on receipt of approval	6 months
Duration of the project	6 months
Amount of money required	One-time Cost: Rs 9 million approximately
Recurring Expenses: Rs 2.2 million	Expected Annual Income: Rs 2.0 million

EXECUTIVE SUMMARY

This proposal is about setting up of a multi-modal gymnasium in DLW. Last year DLW Hospital registered about 150 heart ailment cases. This year, the figure has risen to 200. Similarly, there has been phenomenal increase in the high blood pressure, depression, and anxiety cases. In addition, other stress-related medical problems have shown a rising trend, notably that of the cardio-vascular systems, digestive, and the nervous systems. Total cost incurred by DLW due to lost working days and also due to the cost of medical treatment was calculated to be Rs 57 lakh for last year alone. This year, the figure is expected to be at least double that of the previous year.

In order to arrest these alarming trends through preventive means, it is proposed to set up a multi-modal gymnasium at DLW for use by staff and officers, and their families. Contrary to popular belief, a multi-modal gymnasium offers varied health and fitness programmes, ranging from iron-pumping machines to Yoga therapy and Chinese acupuncture. This technical proposal enumerates the suggested outline of the proposed gymnasium, conventional and non-conventional programmes proposed to be offered, and the consequent benefits due to the same. The proposal also brings out the estimated time schedules for completion and the cost likely to be incurred.

The outcome of this project is envisaged in terms of reduction in lost working days and associated costs due to medical problems of DLW staff and officers. Also, the project is expected to fulfil a long-pending demand of DLW staff for setting up of a multifarious gymnasium in DLW.

BACKGROUND

In the year 1962, when DLW was set up with American collaboration, the stadium, the golf course, the indoor badminton courts, the squash courts, the tennis courts, and the basketball courts were constructed with the aim of making the fitness facilities available to the DLW employees. It can be said with some pride that DLW employees and their children have excelled in a number of sports and some of them have even found place in the national teams. Availability of adequate and wide variety of sporting facilities has been primarily responsible for a healthy atmosphere in DLW as the number of lost working days due to sickness have been low compared to other production units of Indian Railways and also IR as a whole.

The recent years have, however, seen a rise in the working pressures as DLW has strived to compete with the global market. There have been demands on DLW system to bring out new designs of locomotives in less cycle times and at reduced costs. The competition from Chinese and other Asian suppliers have had a telling influence on DLW's operating ratios. Amidst the rumours of possible privatization and a reducing budget from the Railway Board, DLW has not only been able to survive but has made a place for itself in the Mid-east, South East, and African markets. Exports to countries like Bangladesh, Tanzania, Jordan, Sri Lanka, Vietnam, and Malaysia have been successfully executed.

Uncertainty and diversity of production have had a detrimental effect on the mental and physical health of its employees. The number of cases of cardiovascular diseases has almost doubled in the last three years. The number of lost working days due to sickness has also significantly increased in the past few years. There has also been a general increase in grievance levels of the employees with regard to their future, especially when they compare themselves with other government departments, which are still insulated from the market economies. The Staff Welfare Committee during its last meeting with the Chairman, DLW, had recommended certain steps to alleviate the troubles of employees. Setting up of a multifarious gymnasium figured as one of the recommendations. On this basis the Chairman had asked the Personnel Department to put up a proposal for setting up of a multifarious gymnasium in DLW.

STATEMENT OF THE PROBLEM

Figure 1 shows a year-wise break-up of sickness cases registered by DLW hospital.

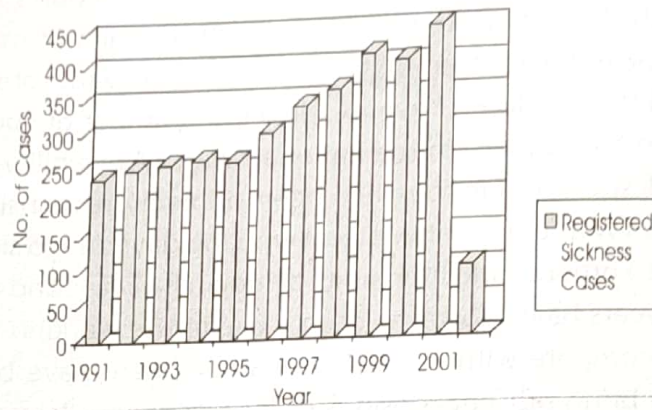


Figure 1 Year-wise break-up of registered sick cases in DLW hospital

As can be seen, there has been a gradual increase in the number of registered cases over the past ten years. Year 2000 shows a slight reversal in the number of cases, mainly because of a large number of retirements during that year. The above figure only refers to the in-patients department cases. If the out-patients reporting is also added, then the problem assumes larger proportions. The trend, however, remains the same.

Given in Figure 2 is the break-up of the cases in 1991. The corresponding position in year 2001 is given in Figure 3.

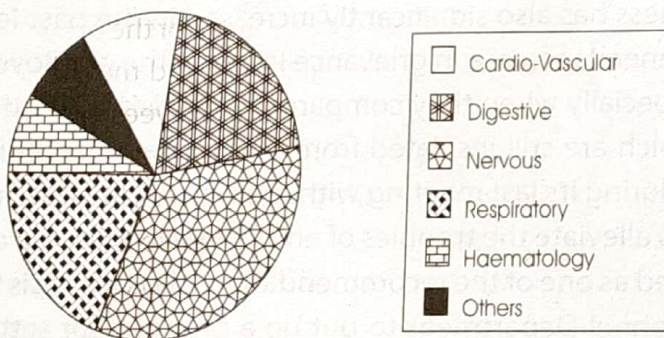


Figure 2 Break-up of registered cases in Year 1991

Figure 3 Break-up of registered cases in the Year 2001.

Figure 4 shows the working days lost in the last year due to medical problems and the associated total costs. This is compared with the projections for the year 2002.

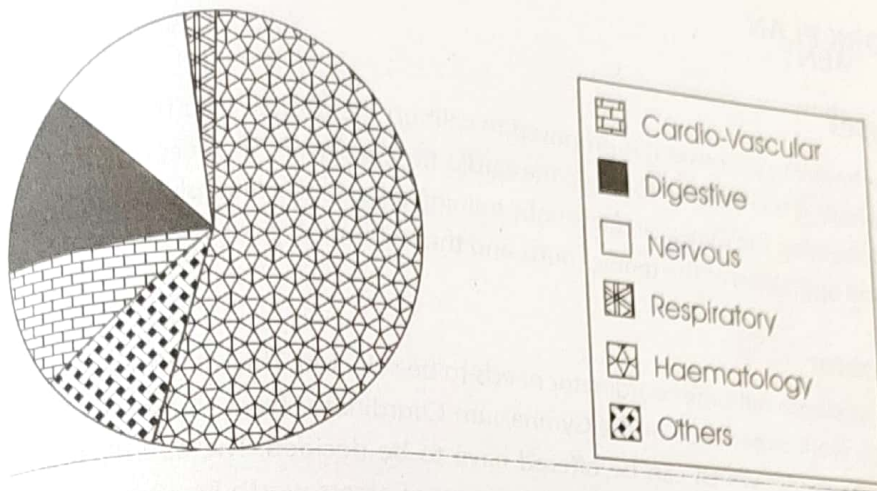


Figure 4 Working days lost and total cost incurred due to medical problems

As can be seen, the associated total costs on account of sickness are projected to double in the current year. The actual expenditure due to lost working days and due to medical treatment is expected to touch Rs 120 million in the current year. The share of cardiovascular diseases has increased significantly. More significantly, this has had an adverse effect on the morale of the employees.

Objectives

The main objective of setting up the gymnasium is to ensure fitness for the employees through sports, exercises, healthy food habits, relaxed life style, and meditation. A multi-modal gymnasium will act as a counselling centre for employees with tailor-made fitness programmes.

It is also proposed to maintain a health database of the employees in association with the DLW central hospital. The bottom line is to have more satisfied and healthy employees with consequent reduction in lost working days and medical expenditure.

WORK PLAN

Phases

For scheduling purposes it is proposed to split up the project into three phases. In the first phase, it is envisaged to set up the cardio-fitness centre. The second phase is aimed at establishing the Cybex circuit weight-training area. In the final phase, the meditation hall and upgrading of the tennis courts and the swimming pool are planned.

Coordinator

As a first step, a full-time coordinator needs to be selected. The minimum qualifications and the work experience of the Gymnasium Coordinator have to be determined and the emoluments which can be offered have to be decided. The coordinator shall be responsible for looking after the management of assets worth Rs 10 million and shall also be responsible for effective management of the gymnasium. Therefore, selection criteria are required to be approved by the Chairman.

Location

It is proposed to locate the cardio-centre and the weight centre of the gymnasium in the North Institute of DLW. The Yoga and meditation centre is intended to be put up at the Officers' Club. The location of the courts and the swimming pool remains the same but the skirting area around these is planned to be concreted and tiled.

Area

The cardio-centre and the weight-training centre require an area of about 20,000 square feet. The area has already been surveyed and the vacant stretch in front of the basketball court in the North Institute premises can be used for construction of the building. For the Yoga centre, the space near the Officers' Club is proposed for building the main hall and the annexe. The area in front of the swimming pool is planned to be utilized for construction of wash rooms.

Types of Equipment

The cardio-centre is envisaged with the following equipment:

- a. Treadmills

- b. Stair Climbers
- c. Elliptical gliders
- d. Upright & recumbent bicycles
- e. Rowing machines

The weight-training centre is proposed to be equipped with the following equipment:

- a. Weight benches
- b. Wall bars
- c. Parallel bars
- d. Incline boards
- e. Balance beams
- f. Trestles
- g. Weight machine centre

The Yoga centre needs no specific equipment, but requires a hall with proper ventilation. There are plans to have a tie-up with the Art of Living Foundation for meditation courses.

Human Resource

It is estimated that a skeletal staff of about five shall be required for proper administration. For this purpose no additional staff is planned to be recruited, rather volunteers from the existing class 'C' and 'D' categories shall be screened.

Charges

For DLW staff and officers, the charges shall be deducted from the salary at a flat rate of Rs 500/- per month. For external members the fee shall be Rs 2000/- per month.

Timings

On Saturday and Sunday the gymnasium is proposed to remain open from 7:30 hrs to 17:30 hrs. On working days the timings need to be decided in consultation with the staff council and the officers' association. However a timing of 6:30 to 8:30 in the morning and 16:00 to 19:00 in the evening appears to be convenient.

Methodology

For civil construction works, it is first proposed to draw up the detailed layouts in association with DLW's civil engineering wing. The specifications of the buildings also need to be firmed up. Thereafter, potential supplier assessment of reputed civil contractors will be done after floating limited tenders. Electrical works shall be clubbed with the civil works.

For purchase of the equipment, it is intended to buy these on single tender basis from Gold's Gym who are the leading manufacturers of gymnasium equipment.

Organization of work elements and time schedule

Given below in Table 1 is the list of activities and the expected durations for each. The detailed Gantt chart shall be worked out after the approval of the proposal. The expected completion time after paralleling of activities has been worked out to be about six months from the date of commencement of work.

TABLE 1: List of Activities and Expected Durations

ACTIVITY	DURATION
Getting approval for the technical proposal	10 days
Discussion with staff council & officers' association	5 days
Nomination of core group	3 days
ACTIVITY	DURATION
Briefing of the core group	5 days
Budget approval	15 days
Forming of specification for civil work	10 days
Forming of specification for equipment	10 days
Freezing criteria for co-ordinator selection	5 days
Civil contractor survey	15 days
Discussions with Gold's Gym regarding equipment	10 days
Calling of volunteers from staff	10 days
Tender for civil works	30 days
Single tender for equipment	25 days
Selection of coordinator	30 days
Selection of other staff	25 days
Completion of civil works	90 days
Installation of equipment	90 days
Tie-ups for Yoga centre	30 days
Suggested plan of action for utilization	

There is a requirement to increase fitness and health awareness amongst DLW's employees. DLW's internal cable TV shall be used to promote the gymnasium. Schools and colleges shall be given sets of fliers for distribution. It is proposed to organize weight-lifting and body building competitions for children as well as for adults to attract interest of DLW's employees.

In association with the DLW hospital, dedicational and physical therapies shall be worked out for some volunteers. This shall give an impetus to popularizing the concept of fitness. It is expected that the full capacity of the gymnasium will be on the lines similar to that of the DLW golf course.

It is proposed to have separate timings for family members. This shall ensure active participation by ladies and children. This experiment has already been successfully tried out with the swimming pool.

It is expected that a few success stories in terms of improved fitness levels among the staff shall impart momentum to the whole concept of gymnasium.

Budget Estimate

Given below in Table 2 is an estimate of cost likely to be incurred in setting up the gym facilities. The recurring costs shall be additional to this estimate and have been worked out separately. Also indicated are the expected earnings/support annually.

TABLE 2: Expected Expenditure and Earnings for the Gymnasium

S no.	Category of Expenditure	Cost in ₹ million
	One-time cost	9.0
1	Civil Construction	2.5
2	Electrical Works	0.5
3	Equipment	3.0
4	Selection process	0.5
5	Core team expenses	0.5
6	Travel expenses	0.5
7	Misc expenses	1.5
	Recurring Expenses/Year	2.2
1	Salaries and wages	0.5
2	Maintenance	0.7
3	Contingencies	1.0

	Expected Income/Year	2.0
1	DLW members	0.5
2	Non-DLW members	1.5

It is anticipated that with the setting up of systematic fitness facilities such as a gymnasium, the overall health levels of the employees and their families shall improve. This is supported by the fact that many leading organizations in the world including Intel, IBM, GE, TATA, and others have successfully tried and implemented this concept.

The Chairman is therefore requested to accord approval to the setting up of a multifarious gymnasium at DLW.



Please refer to the CD for more samples of technical proposal.

SUMMARY

Technical proposals are sales offers to solve a problem. In writing such proposals, academicians offer their domain expertise in solving technical problems; business professionals offer their know-how to take up some major or minor projects in order to provide consultancy, training, or innovative solutions to certain problems that arise in their organizations or other companies.

Technical proposals are written in formal and persuasive language and include standard structural elements. An understanding of the purpose, structure, characteristics, and style of technical proposals will enable us to prepare winning proposals.

EXERCISES

1. The Technical Writing Department of Bell Educational Supplies and Technologies (BEST) needs new computer equipment. Currently, the department has outdated hardware, outdated word processing software, an outdated printer, and limited graphic capabilities.

Because of these problems, the company's user manuals, reports, and sales brochures are being poorly reviewed by customers. Further, BEST has no website for product advertisement and/or company recognition. All these factors have led to a decline in profits.

As Technical Writing Department Manager, you have consulted with your five staff members to correct these problems. As a team, you have decided that the company needs to purchase the following new equipment:

- Six new personal computers
- Two laser printers
- Word processing software
- Graphics software
- Scanner

Draft a technical proposal to the CEO of BEST company for the purchase and installation of the equipment. Invent all the necessary details.

2. As a fresh graduate in engineering you have decided to establish a manufacturing unit in your hometown. For this purpose, you have decided to avail yourself of the liberalized loan facility under the self-employment scheme. Therefore, you wish to submit an unsolicited technical proposal for the manufacture of an item of your choice seeking loan from the State Industrial Development Corporation (SIDC), Jaipur.

Now draft this proposal to be sent to the Director, SIDC, Jaipur, inventing the necessary details.

3. Assume that as Project Development Officer you have been asked by the National Institute of Computer Education, Futura Building, 24/377 Peetampura, New Delhi-110031, to set up a Communication Technology Centre at Pilani for training professionals in the use of latest technological aids for face-to-face and distance communication.

Inventing all the required details, write in proper format this technical proposal which is to be submitted to the Director of the Institute.

4. The Government of Orissa has invited proposals from Non-Governmental Organizations (NGOs) for setting up small-scale industries in the areas of electrical goods, motor spare parts, oil-crushing units, cotton textiles, wool manufacturing, etc., for the rehabilitation of the flood-affected people of the state.

Choose an industry of your choice and write a technical proposal to be submitted to the Director of Industries, Government of Orissa, assuming yourself to be the Managing Director of a public limited company. Invent the necessary details.

5. Excel Computer Manufacturing (ECM), a multinational company, wants to improve the existing parking facilities for the four-wheeler and two-wheeler vehicles of its staff.

As the Personnel Manager, ECM, draft a proposal to be sent to the Secretary, Board of Directors, of your company for improving the parking facilities. Your proposal should include the following issues:

Area availability, lighting, provision of stands and roofs, arrangement of security, issue of identity cards, fixing the rent, etc.

6. The Government of India has recently launched a company to produce personal computers on a large scale. As Finance Manager of this company draft a proposal containing all the required details like space, space-conditioning and dust-proofing, hardware, peripherals, consumables (like disks, tapes, ribbons, floppies, etc.), networking, power supply, technical and other staff, ancillary support systems, etc. This proposal is to be submitted to the Secretary, Department of Company Affairs, for approval.
7. Assume that your organization has been spending about Rs 500,000 per annum on getting its various documents such as routine forms, brochures, reports, proposals, manuals, etc., printed by outside agencies. Now, the organization has decided to have its own publishing unit to cater to all the above printing needs. As the Office Manager, draft a proposal for the creation of this unit for the consideration of the Board of Directors of your organization.
8. As the District Health Officer, Vidisha, Madhya Pradesh, you have decided to set up a Rehabilitation-cum-Health-Care Centre in the district, especially for the benefit of the rural population of about 200,000. The objective of the rehabilitation programme is to help persons with total or partial disability and to enable them to live with human dignity. The health-care programme mainly aims at carrying out immunization programme effectively in addition to developing awareness about the need for nutrition to fight the menace of malnutrition and the related diseases among children. The proposal is to be submitted to the Director of Health Services, Madhya Pradesh, Bhopal.
Draft this proposal.
9. The Government of Rajasthan has earmarked Rs 100 million for drought relief work, for the worst-affected district of Jhunjhunu in May 2014. This money has to be spent on the following:
 - Provision of work to labourers on afforestation, road construction, digging wells, etc.
 - Distribution of seed, fertilizers, and fodder at subsidized rates
 - Supply of drinking water
 - Supply of essential commodities through fair price shops

- Free distribution of medicines
- Supply of free lunch to school children

As Collector, Jhunjhunu, draft a proposal to be sent to the Secretary, Home Department, Government of Rajasthan, Jaipur, containing the details of how you propose to proceed with the relief work under the various categories mentioned above.

10. The Northhill University, Guwahati, wishes to revise and revamp its curriculum in business. As the Research Associate in the Bureau of Business Research, Shillong, you have been asked to study the data collected from business executives and business leaders regarding the strengths and weaknesses of the graduates' knowledge of business and business skills. The table given below contains the tabulated responses of 1000 respondents.

Respondents' Views on the Importance of Subject Areas in Business (in per cent):

Ratings Courses	Impor- tant	Very impor- tant	Unimpor- tant
Accounting	88.2	11.8	0.0
Business Policy	81.5	14.0	4.5
Business Communication	91.7	8.3	0.0
Management	68.5	22.7	8.8
Management Information System	59.8	32.8	7.4
Marketing	80.7	19.3	0.0
Organizational Behaviour	62.0	33.7	4.3
Personnel Management	11.8	37.7	50.5
Strategic Planning	39.6	51.7	8.7

As the Research Associate of this Bureau, draft a technical proposal to be sent to the Registrar, Northhill University, Guwahati. Invent the necessary details and use the statistics given in the table