Chapter 3 Problem Definition and Scope

This chapter discusses the need for the study, problem definition, scope, and implications of the study.

3.1 Need for Study

Over past ten years technical communication is gaining more visibility across various technological platforms. The evident reasons for this move to the foreground are:

- More and more people are using computers and web-based applications. They suddenly need to know many things about computers, and in a simple way.

- Technology is becoming affordable and people are using more and more gadgets routinely. They want to use these gadgets effectively.

- Organizations are discovering the benefits of users making informed decisions.

- Moreover, the general trend is towards the acceptance that technology is for everyone, and it must be accessible to all. The first step towards it is to provide lot of information about technology, in a simplified manner, making people comfortable about it.

The media explosion has paved the way in a big way. Users can access information anytime and anywhere. The traditional medium of printed publications has been pushed back as 24-hour TV, Internet, and mobile devices are taking over. These media broadcast updated information and can be used as effective communication avenues. Corporate groups are leveraging these media to build their image, and the technological facet of the group is fast emerging as the defining facet.

Previous research and specific studies have established that technical communication adds value to the product, project, company, and the company image. However, there has been dearth of studies aiming to measure the actual contribution quantitatively. Only when a measurable quantity is attributed to an activity, its significance can be demonstrated and acknowledged.
This study analyzes the contribution of technical communication to meet corporate objectives in a variety of ways, with examples, and with measurable quantities.

3.2 Proposed Model

For measuring the contribution of technical communication, both external as well as internal communication formats are considered. They are further broken down in three typical technical communication products/formats each:

- **External Communication**
  1. Popular Media Material in creating awareness
  2. Marketing / Sales Material for promoting sales
  3. Product Documents guiding towards efficient use

- **Internal Communication**
  1. Support / Services / Maintenance Documents for assisting maintenance
  2. Training Material / Knowledge Base in facilitating training
  3. Internal / Quality/ Process Documents for ensure quality and efficiency

![Figure 13: Contribution of Six Technical Communication Formats](image-url)

Figure 13: Contribution of Six Technical Communication Formats
The weight for each of these is considered equal.

For measuring the contribution to corporate objectives, both financial as well as non-financial corporate objectives are considered. They are further broken down into five critical objectives each:

- **Financial objectives:**
  1. Increase revenue
  2. Reduce Fixed costs / overheads
  3. Reduce Production costs
  4. Reduce Sales cost
  5. Reduce Maintenance costs

- **Non-financial objectives:**
  1. Promote Innovation and Research
  2. Pursue higher quality
  3. Ensure Employee satisfaction
  4. Establish leadership in the field
  5. Demonstrate corporate social responsibility (CSR) – awareness, education, health benefits, environmental protection, active support to a cause

The weight for each of these is considered equal.
The contribution of each of the technical communication format to each of the corporate objective can be measured as the perception of value added, on a Likert scale ranging between 1-5, where 1 represents no value added, and 5 represents very high value added.

The values can be consolidated to arrive at the comprehensive contribution made by technical communication towards achieving elemental corporate objectives.

For more specific analysis, contribution of a typical format towards financial / non-financial objectives can be considered, or contribution to a critical corporate objective by internal / external communication can be considered.

### 3.3 Problem Definition

Studying if Technical Communication significantly contributes towards achieving Corporate Objectives in the Information Technology industry, and the extent to which the selected 6 (six) typical formats of Technical Communication individually contribute towards achieving the selected 10 (ten) relevant Corporate Objectives in the Information Technology industry.
3.4 Hypothesis

The null hypothesis is stated as:

\[ H_0: \text{There is no significant contribution of Technical Communication in} \]
\[ \text{towards achieving Corporate Objectives in the Information Technology} \]
\[ \text{industry.} \]

The alternative hypothesis is stated as:

\[ H_1: \text{There is a significant contribution of Technical Communication in} \]
\[ \text{towards achieving Corporate Objectives in the Information Technology} \]
\[ \text{industry.} \]

3.5 Study Objectives

The study objectives are:

1. To study the contribution of technical communication towards achieving corporate objectives in the Information Technology industry.

2. To measure the extent of contribution of technical communication towards achieving corporate objectives in the Information Technology industry.

3. To analyse the difference between the perceived extent of the contribution by different demographic groups.

4. To develop the model of technical communication formats for contribution towards achieving corporate objectives.

5. To establish the most significant formats of technical communication for contribution towards achieving corporate objectives.

3.6 Operational Definitions

For the scope of this study:

- **Technical Communication** is a broader field of business communication, involving designing and developing communication products that transfer technical information from the experts who know it to others who need to know it.
• **Corporate Objectives** are a set of specific realistic and measurable goals the company wishes to achieve over a defined period of time.

• **Information Technology Industry** comprises of those industry sectors whose business is related to information technology, including
  
  ° Development and application of computers, and communications-based technologies for processing, and managing data and information.
  
  ° Manufacture of computing device, peripherals, networking products, and communications equipment.
  
  ° Production of storage devices including magnetic tapes and disks, and associated drives, etc.
  
  ° Digital processing of data and content for electronic media.

### 3.7 Scope of Study

This is a *Descriptive Research* where a study of the contribution of Technical Communication in Information Technology Industry towards meeting Corporate Objectives is undertaken to find out the significance of contribution in terms of measurable benefits.

The scope is aimed at Information Technology for the following reasons:

• The major industries using technical communication effectively are information technology, manufacturing, pharmaceuticals, aviation, shipping, law, and administration. Within these categories, information technology employs about 33% of the total technical communicators.

• The general public uses computers and other technological gadgets routinely. They also use computer software and access Internet / World Wide Web frequently. The technology is complex and needs assistance in the form of technical communication products.

• The end-users of Information Technology are substantial in numbers and extremely diverse. The skills they need to learn and constantly update are also fairly new such as data entry, Net surfing, and individual customization of gadgets. However, for practical reasons they all cannot get hands-on training for each of their activities with computers, software or other technological gadgets. Hence they tend to rely on the

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available technical communication products for usage, learning, and troubleshooting.

- Hence the need and availability of technical communication products is the highest for Information technology. It also follows that the general public is much more aware of technical communication products related to Information technology. It is therefore worthwhile and viable to understand and measure their perception of the contribution of technical communication within the Information Technology industry.

- Information technology industry has a long and structured history of using technical communication as a crucial activity. The typical Information Technology organizations are human-resource-centric with flexible team structure. The teams are regularly formed and re-formed based on projects, exposing all the human resources to the scope and reach of technical communication. The corporate group and middle-level managers therefore have a greater awareness of technical communication and its contribution.

- The most common value contribution of technical communication is in the three categories – instructional training, information distribution, and regulation compliance. Information technology is the industry where all these three categories are well-represented and hence provides the most comprehensive view of the contribution of technical communication.

3.8 Implications of Study

This research looks at technical communication from the value perspective and measures how end-users, technical communicators and corporate managers perceive the value of technical communication.

The consequences of the study are relevant to both – the corporate management as well the practitioners of technical communication.

The main focus of the study is in finding out to what extent technical communication contributes by adding value towards achieving corporate objectives. This is the first time any effort is made to measure the value and extent of contribution.

As the study will eventually reveal the actual contribution, it will help the industry tremendously to understand and appreciate technical communication; as well as open up possibilities to utilize it in a much better way.

Currently, a significant number of senior corporate managers understand the importance of technical communication, through experience and perception. Through this study they will be on a more firm footing with concrete statistical
The study covers a number of formats and corporate objectives, of which all the corporate managers may not be aware of. They will be in for a pleasant surprise to discover more ways and means of extracting value from technical communication.

The rest of the senior corporate management looks at technical communication either as a support activity that helps tie loose ends of the product/service; or simply as a regulatory requirement to be fulfilled. With this study, they will be introduced to multiple ways of benefiting from superior and appropriate technical communication. The net result will be to a broader and deeper use of the technical communication group that they already use cursorily.

For technical communicators, the study has multifaceted significance, in terms of exposure to more aspects of the field and also in terms of measured value of the contribution. Being aware of the value addition, the technical communicators can design and deliver better technical communication products and also lobby for more avenues to contribute.

This study will also provide the technical communicators with a strong support to their activities and help them raise their profile within the industry to claim their rightful place.

For the end-users, the benefits will be immense. To begin with, as the corporate managers have tangible data available, superior technical communication products will be sponsored to ensure that the end-users get complete and correct information that is suitable to their profile. The end-users will be able to assimilate this information better and take an informed decision of buying and using technological products.

Being still in the state of development, technical communication will certainly evolve further over coming years, extending in formats and applications. The current study may also need to be extended to cover these newer formats and applications.

### 3.9 Limitations of Study

This study focuses on technical communication, its variety of formats and the financial as well as non-financial corporate objectives it can contribute to. In retrospect, there are two immediate limitations of the current study need to be acknowledged here.

The first limitation concerns the still evolving nature of technical communication. As of now, the end-users may not be fully aware of what technical communication conveys, how much of it they access, and what benefits it brings. Similarly, some technical communicators—relatively new to the field or having worked only on a few formats—may be unaware about the full spectrum of technical
communication and its benefits. The corporate managers, too, may not be fully exposed to the strength and coverage of technical communication.

At times it is difficult to explain the complete details of technical communication to end-users or even to some corporate managers - since it is such a specialized field. These factors may have affected some of the survey responses.

The second limitation is about the focus of the study being on Indian IT companies. It needs to be explored how much of these findings can be generalized for other technological products beyond the typical IT products. However, this limitation can actually be viewed as a starting point of such a study later extending it to cover more technological domains and then more industries.

3.10 Summary

This study analyzes the contribution of technical communication to meet corporate objectives in a variety of ways, with examples, and with measurable quantities.

The scope is aimed at Information Technology, and focuses on the six typical technical communication products/formats for contribution made to the ten specific corporate objectives.

The implications of the study include providing concrete data that will help corporate managers take informed decisions, help technical communicators to assert their rightful position in the industry, and in general improve the quality of technical communication for the end-users.

The inherent limitations of the study concerns the still evolving nature of the technical communication itself and the specific focus on IT industry that may or may not be generalized for the other industries / technological products.