Executive Summary

Technical communication bridges the gap between complex technology and its users. It provides the background information about technology in a simple manner and makes it appealing to the users. The fast advancement of technology and its quick penetration in our daily life poses several confusing and stressful questions to the users. Technical communication attempts to answer those questions reassuringly.

Technical communication ranges right from printed word to informational videos to eLearning tutorials, and is the interface to take such varied information to the audience. It involves understanding technology and presenting it in simple intelligible chunks to the audience.

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

- More and more people are using computers and web-based applications. They need to suddenly 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.

In the 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

The weight for each of these is considered equal.

For measuring the contribution to corporate objectives, both financial as well a non-financial corporate objectives are considered. They are further broken down in 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.

This is an Exploratory Research to assess the contribution of Technical Communication towards meeting Corporate Objectives in the Indian IT Industry, by studying the extent to which the selected 6 (six) significant formats of technical communication individually contributes towards achieving the selected 10 (ten) relevant corporate objectives in the Information Technology industry.
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.

The research was carried out using *primary* data collected directly from respondents of the survey designed for this research, along with personal interviews wherever possible; and *secondary* data from existing published information – either specifically from technical communication field, or from related fields such as IT industry and Indian industry.

To get a complete 360° view of technical communication, a representative sample size was selected using simple random sampling for each of the different groups - Users of Technical Communication, Technical Communicators, and Corporate Managers.

For each group separate questionnaires were designed. For each question / combination of technical communication format and corporate objective, they were required to rate the value provided on a Likert scale ranging between 1-5, where 1 represents no value added, and 5 represents very high value added.

For the users of technical communication self-completed individual questionnaire method was selected, where the questionnaire was personally handed over and collected after completion.

For the technical communicators, and also for corporate managers, self-completed individually emailed questionnaire method was selected, with personal interviews wherever possible.

For statistical hypothesis testing at 5% significance level, z-test and ANOVA were used.

After the extensive analysis, the research outcome has confirmed the contribution of technical communication towards achieving corporate objectives, and has assessed the extent of contribution as average.
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.

The key findings are:

1. The end-users are enthusiastic about technical communication products, and though their usage is moderate, the mean of their perception of value of technical communication is 3.72 out of a maximum of 5. The mean is closer to 4 on a scale of 1-5, indicating *high* value.

2. The end users attribute *high* value to the contribution of technical communication towards both the financial objectives, 3.88 out of a maximum of 5; as well as the non-financial objectives, 3.56 out of a maximum of 5.

3. The perception of the end-users regarding the contribution of general technical information such as information on popular media is perceived to add only *average* value, 3.13 out of a maximum of 5, possibly because it had no specific focus.

4. The product-specific as well as general technical marketing information scores well with the end-users, their value attribution placed at 3.83 out of a maximum of 5. The attribution is closer to 4 on a scale of 1-5, indicating *high* value, perhaps because the technical marketing information helps them to make a buying decision.

5. Social and environmental information, though not directly relating to the immediate needs of end-users, is still very much appreciated and rated 3.59 out of a maximum of 5, corresponding to *high* value.

6. The end-users consider that product manuals add *high* value, 4.02 out of a maximum of 5, from the perspective of overall information, as well as from the perspective of usage related information.

7. Product manuals are also believed to add a *high* value for influencing repeat sell, according to the end-users. They rate it value 3.83 out of a maximum of 5.

8. There is a *significant difference* in perception of value, based on the age, education level, and employment status of the end-users. However such differences depend on the purpose and the specific form of the technical communication, and cannot be generalized.

9. Technical communicators are not fully aware of the extensive spectrum of formats they can create, and of their possible contribution from the business perspective.
10. From the viewpoint of technical communicators, the value added by technical communication to the financial objectives is 2.57 out of a maximum of 5, and the value added to non-financial objectives is 2.52 out of a maximum of 5; both very close to each other and both corresponding to average value.

11. The technical communicators give a higher rating to internal technical communication such as support documents, process documents and training material, rating those 2.72 out of a maximum of 5; probably because they have more access to assess its contribution from within the organization.

12. Technical communicators tend to relate value of formats to the time and efforts spent on them, being partial towards product documents on which they spend the majority of their efforts, rating the value contribution as 2.79 out of a maximum of 5. This value is closer to 4 on a scale of 1-5, corresponding to high value. However, from the viewpoint of end-users and corporate managers, product documents do not rate high.

13. There is a significant difference in perception of value, based on the education levels of the technical communicators. However such differences depend on the purpose and the specific form of the technical communication, and cannot be generalized.

14. Corporate managers are genuinely knowledgeable about the range and contribution of technical communication, and their assessment of its value is significantly realistic. All the surveyed managers had used technical communication in various formats and all rated its value as above zero.

15. Corporate managers attribute average rating to the value added by technical communication to the financial objectives, 2.74 out of a maximum of 5, and also to non-financial objectives, 2.67 out of a maximum of 5.

16. According to the perspective of the corporate managers, contribution of internal communication scores more than external communication in the context of financial objectives, 2.94 against 2.54 out of a maximum of 5. On the other hand, in the context of non-financial objectives, contribution of external communication scores more than internal communication, 2.79 against 2.56 out of a maximum of 5.

17. Corporate managers place a strong emphasis on popular media material, by rating it 3.15 out of a maximum of 5 for contribution towards non-financial objectives such as promoting innovation and research, pursuing higher quality, ensuring employee satisfaction, establishing market leadership and demonstrating CSR.
18. There is a significant difference in attributing value by different company sizes. However such differences depend on the purpose and the specific form of the technical communication, and cannot be generalized.

19. Overall, the perception of contribution of technical communication towards the financial objectives is marginally more than that towards the non-financial objectives.

20. Contribution of internal communication towards financial objectives is the highest, in the context of internal / external communication and financial / non-financial objectives.

21. In case of IT industry, which is highly specialized and work with complex technology, popular media material does not contribute much towards the financial objectives.

22. Training material emerges as the top-ranked format that can contribute significantly to the corporate objectives. It ranks the highest in terms of the value it can contribute to the non-financial objectives. In case of the financial objectives, it ranks the highest for the technical communicators and fourth (but actual value very close to the top value) for the corporate managers.

23. The study demonstrates a significant difference between the perceived extents of the contribution by different demographic groups; however such differences depend on the purpose and the specific form of the technical communication.

24. Only a very few companies have undertaken any study specific to the company to measure actual contribution of technical communication in terms of revenue generation or cost-saving.

The immediate practical implications of the research results are:

1. Emphasizing on superior quality technical communication that gives correct and complete information in an easy and accessible manner.

2. Focusing on providing high consistency of technical communication from the organization, since the end-users tend to consider such consistent communication as a contributing factor for company image.

3. Leveraging the benefits of social and environments information as well as information about corporate social responsibility to create awareness along with building up company image, since such information is highly appreciated by the end-users.
4. Designing technical communication to align correctly with the audience profile, as there is a significant difference in perception of value based on the age, education level, and employment status of the end-users.

5. Considering that Training Material emerges as the top-ranked format contributing significantly to the corporate objectives, substantial efforts can be planned to go in creating such material and making it readily available to internally to employees as well as externally to end-users.

6. According to the corporate managers, contribution of internal communication towards financial objectives is the highest – a fact that can be exploited to create extensive and effective internal communication and leverage its contribution towards financial as well as non-financial objectives.

7. Providing more exposure and a wider forum to technical communicators, so as to maximize benefit from their skills and expertise while creating all the formats of technical communication products.

As a follow-up of the leads provided by this research, further research can be suggested in the following specific areas:

- Investigating the rationale behind the difference between the perceptions of value of external technical communication, based on the education of the technical communicators.

- Studying in detail the perception of technical communicators towards their own profession, including the range of activities they can and do perform; the contribution of these activities to the corporate objectives; and the methods of improving on those.

- Carrying out a case-study based research to measure and record actual contribution of technical communication in terms of revenue generation or cost-saving.

- Identifying and evaluating the specific formats of technical training material that can contribute to the corporate objectives.