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I Summary

Terminology is an essential knowledge provider in technical communication. Especially in companies, many divisions deal with the development, dissemination and use of terminology. Terminology ranges from construction and marketing, technical writing and training to translation and localization. In addition, the company's internal communication as well as the communication between companies and their clients is based on consistent and understandable terminology. Therefore companies need to deal with processes and methods of terminology and use tools for terminology management.

The subject of terminology work, however, often causes controversy within companies. Some look at it mainly from a cost and investment related angle, whereas for others terminology work is a definite must in order to improve quality and efficiency. This apparent conflict shall be solved by conducting a cost and effectiveness study on terminology work supported by empirically verified data (indices). The study contains, amongst others, a section on the theoretical base of terminology work, user experiences and case studies, indices for cost effectiveness analyses, an overview of the systems for terminology management, terminology extraction and control as well as a description of the most important functions of software systems for terminology work. Furthermore, the study provides the results of an online survey on practical terminology work in companies.

1 Results of a company survey

In mid 2009, approximately 1,000 enterprises were polled via an online survey among tekommembers about their experiences with and evaluation of terminology work in their field. The collected data of the 940 respondents was analyzed. Around 34% of the participants were managerial staff and 64% were employees in companies. The remaining 2% were persons currently in training. 67% of the respondents worked in industrial companies, 15% in software companies and 13% in service companies that offer services in technical documentation or translation. Another 5% worked in other companies.

When analyzing the results, the topicality and relevance of terminology problems in companies becomes apparent. In answer to the question of how often it occurs that different divisions of a company, or rather its employees, use different terms for the same (product part), 57% indicated that this happens regularly or very often, 27% said often, 12% stated that it happens occasionally and only 3% indicated that this happens rarely or never. The same results were drawn from the question of how often it occurs they use different terms in different documents for the same (product part): 42% indicated that this happens regularly or very often, 29% said often, 21% stated that it happens occasionally and only 8% indicated that this happens rarely or never.

The reason for this lies in the practice of having a range of divisions involved in assigning terms within the company: In about 80% of the surveyed companies, the task of allocating terms is mainly done by the technical communication as well as the research/development/construction division. In another 64% of the cases, the marketing division, or as in 61% of the cases, the product management department is also involved. Localization/translation or the distribution division are assigned to this task in approximately 40% of the companies, and in almost one-third of the companies, the customer service division (31%) or in some cases the training division (28%) are involved. The following table provides an overview of the results in detail.

Table 1: Division of companies involved in the allocation of terms

Division of the company	Percent
Technical documentation	79.7%
Research/(software) development/construction	79.7%
Marketing	63.5%
Product management/portfolio management	61.3%
Translation/localization	40.4%
Distribution/sales	39.3%
Service/customer service/after sales service	30.7%
Training	28.4%
Management	26.3%
Corporate communications/public relations	24.4%
Quality assurance/quality management	16.3%
Purchase/procurement	12.3%
Assembly/assembly planning/production	12.3%
Maintenance/service	8.2%
ITservice	6.7%

The problematic nature of different terms has far-reaching consequences for work efficiency: After all, 22% of the respondents stated that the terms of product parts are frequently or very often not understood immediately. Another 26% indicate that this is often the case, 36% indicate that it occurs occasionally and according to only 16% it happens rarely or never. As a result, about 21% have to look up or ask for the correct terms on a frequent basis or very often, another 30% do so often, 32% occasionally and only 16% have to do so rarely or never. The results point out the importance and the repercussions of terminology problems in enterprises. They are a clear indicator for the time and financial expenditure that arises in companies if the terminology used is not standardized.

Standardized terms have an enormous benefit, according to the survey respondents. 62% estimate that consistent terminology reduces the workload (very) heavily and 26% rather heavily. The time saved is viewed as very large or large by 53% and as rather large by 33% of the respondents. The improvement in quality due to standardized terms is even regarded as large or very large by 84% of the respondents; as is the simplification of the comprehensibility for clients, which is considered as very large or large by 79%. With regards to potential cost savings, at least 20% view the potential for improvement as very high or high, and 24% as rather high. According to the participants, the main benefit lies in quality improvement, where 35% think that it would be very large or large and another 30% think that it would be rather large.

Despite these clear figures, a lot of enterprises do not acknowledge terminology work accordingly. Only 8% of the participants state that terminology work is of great importance in the company. A further 23% estimate its importance as large, 32% as medium/average, and in 32% of the respondents' cases the importance is estimated as little or very little. The problematic nature and importance of terminology work is largely known by companies. Therefore it is surprising that few companies are ready to invest in terminology work: merely 1% of the companies surveyed are prepared to approve a very large investment for terminology work, 11% would approve a large investment and 36% a medium investment. A considerable 52% is only ready to invest in terminology work in their company on a small or very small scale.

In percentages, there is a clear difference between companies already opting for terminology solutions and companies that are planning to do so. The following table 2 shows these figures.

Table 2: Readiness to invest in terminology work

Readiness to invest in terminology work in the company	Defined terminology work in the company		Total
	Yes	No	
very large investment	2.9%		1.4%
large investment	18.3%	4.6%	11.0%
medium investment	50.1%	22.9%	35.6%
small investment	21.5%	44.3%	33.7%
very small investment	7.1%	28.1%	18.3%
Total	100	100%	100%

The results of the terminology problems as well as the perceived benefit and the potential for improvement by terminology work on the one side, and the readiness to invest in terminology work on the other side, show the discrepancy between the importance of terminology work and the readiness of enterprises to invest in it. Most company divisions that want to introduce terminology work to the enterprise face this so-called “opinion and behaviour discrepancy.”

2 Cost-benefit aspects

How can we handle the discrepancy between the necessity of terminology work and the lack of readiness to invest in it? As usual, companies here are facing the question of “motives” again. Why should we introduce a new system or a new method? The benefit of terminology work needs to be identifiable to the companies. It is important to convince the decision makers that false terminology causes high costs and that consistent and appropriate terminology saves costs. In general there are two motives for companies to act:

- Problems in corporate communication can occur, which create costs and can be solved by means of terminology work.
- Terminology work improves the efficiency of information and communication processes in companies and can save costs.

Practice shows that the current reasoning in favor of terminology work is mostly based on only these two motives. This, however, ignores the fact that terminology work is more than just “nice to have”. It is indispensable. An explanation of the problems and all their consequences delivers the motives for the introduction of terminology solutions in companies and leads to an increased readiness to invest. Here the empirical data can make transparent to which extent terminology work can solve a company’s problems:

- Show, with particular emphasis on your company, that based on empirical analyses, the problems due to non-uniform terms are very widespread.
- Explain the potential effects on cost efficiency and quality.
- Explain that terminology work can enable cost savings on various levels and can improve quality.

The experiences of the survey participants provide clues as to where problems arise due to non-uniform terminology and which aspects can be improved by terminology work.

Please find below a selection of these aspects:

- Utilization of correct terms: higher
- Traceability of correct terms: faster
- Translation costs: decreasing
- Match-rate in the Translation Memory System: higher
- Corrections and Errors at the translation: less
- Proofreading rounds: fewer
- Research work: less
- Traceability of documents: improved
- Re-usability: higher and easier

- Search process: faster and more uniform
- Work time: less
- Demand for coordination: less
- Text production: faster
- Recognition factor and corporate identity: higher
- Translation: easier and faster
- In-house communication: better and clearer
- Misunderstandings: fewer
- Training of colleagues: faster
- Glossary: more uniform
- Production of spare part catalogues: faster and less expensive

Most of the stated problems and improvements due to terminology work can be recorded empirically. It is relatively easy to collect data on e.g. the number of terminology-related queries or proofreading rounds at the text production and translation stage. Based on this information it is possible to derive the time saving and cost reduction.

The experiences of the survey participants are among others as follows:

- 5% cost reduction with translations
- More 100% matches of translations leads to about 10% in cost reductions
- About 10% work saving
- About 50% less translation workload
- Estimated 30% cost saving per year
- Possible 20 – 30% cost reduction, including translation
- At further editing and translation, the costs reduction is revised to between 5- 20%
- About 25% cost reduction in the area of maintenance
- Reduction of the error rate and therefore about 5% less workload at the service and hotline
- About 50% saving of time
- 25 – 33% gain in time
- About 60% fewer further inquiries by translators
- 80% fewer complaints about the translations

This information is in each case related to a particular company and does not present representative means. Nevertheless, these experiences show that terminology management can contribute to considerable improvements and savings at different levels, which are measurable and thus provable. Figure 1 shows a first convergence model of the cost-benefit analysis for terminology work in enterprises.

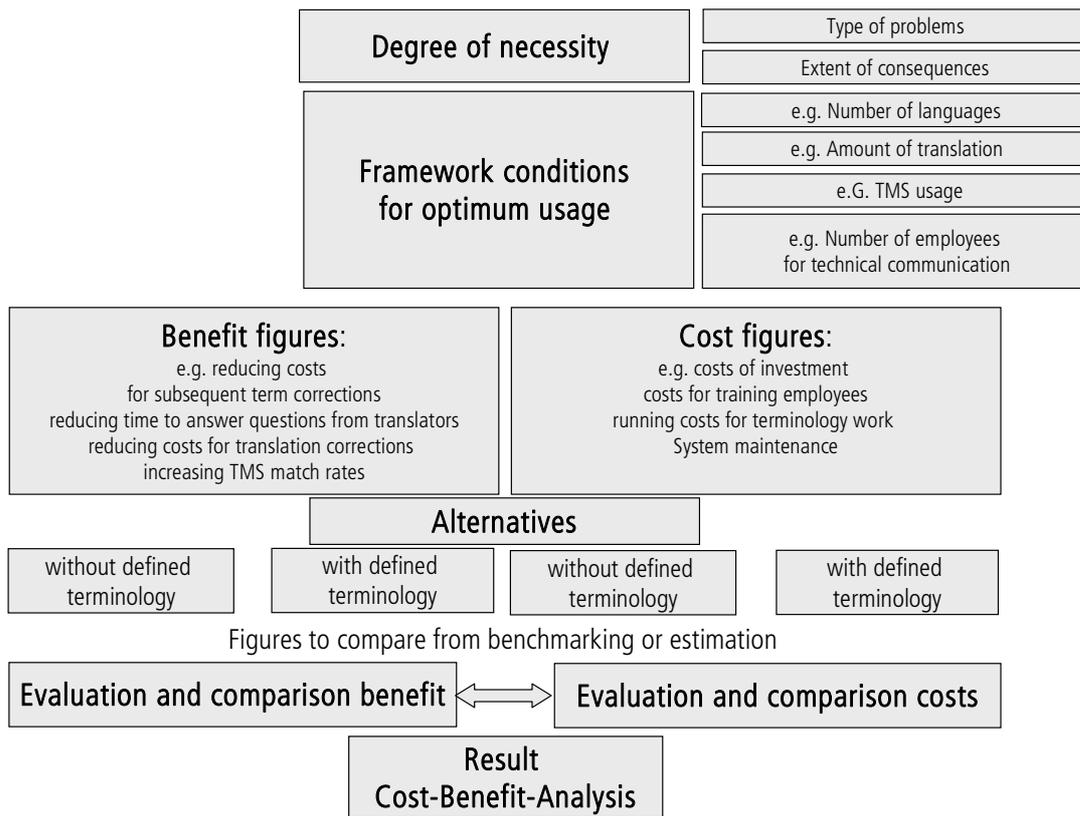


Figure 1: Model of a cost-benefit analysis for terminology work

So far terminology solutions have only been realized by a minority of enterprises. Only 20% of the companies participating in the tekomp-survey are already using an active terminology management system. The results of the survey also document, however, that terminology work is currently a highly topical subject in many companies. About 20% of the participants are in the introduction phase of terminology work and 22% are in the information phase. About 17% of the companies are currently not concerned with the subject of terminology work and only 1% have opted against terminology work (14% not specified).

The present study shall be used as a base for decision making processes in enterprises. Among other aspects, the study contains important explanations on the theoretical basics of terminology work. The theoretical part is supported and complemented by reports of user experiences as well as company case studies. The presentation of the methodology for a cost-benefit analysis and the terminology indices enable companies to develop a business model for the implementation of their own company terminology.

The study further contains a detailed description of all functions of software systems for terminology work as well as an overview of 18 international systems available on the market for terminology management, terminology extraction and terminology control.