A Systematic Analysis on the Structure of Technical Communication

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This study aims to analyze the structure of technical communication patterns within the R&D projects carried out for the last few years in the electronic industry in Korea.

In order to achieve the research objective, a model explaining the relationship between some representative variables is assumed, and research hypotheses are drawn from the model.

The data used for testing the hypotheses were collected through research questionnaires from laboratories of 18 large electronic companies.

Various statistical methods including path analysis are employed to test the hypotheses and to identify the communication patterns.

The major results found in this research are as follows:

(1) The frequency of technical communication has a positive relation with the degree of establishment of R&D management system. In other words, the more sound R&D management system, the more active technical communication.

(2) With a strong statistical significance, group discussion(GD) contributes more to the overall success of R&D project than pair discussion(PD) does, even though both its frequency and its utility are relatively low as compared with the case of pair discussion. This fact implies that group discussion is more important in solving the technical defects or deficiencies effectively.

(3) Among the variables presented in this research model, the cohesiveness of communication is entified as the most influencing variable in improving the success probability of an on-going R&D project.

In conclusion, the new theoretical knowledge observed in this research clearly explains the differences between the technical communication patterns in Korea and those in western countries.

The approach adopted in this research seems to be of great use for diagnosing the technical communication structure of Korean companies with a R&D organization.