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Methodological Study on the R&D Process of the Disabled Person Support System and Its Improvement

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The purpose of this research is making the new methodology about development of the use-support system used in case a disabled person utilizes a computer.

Now, many goods are developed from a barrier-free viewpoint. And a computer makes lower the barrier, which a disabled person holds, and attracts attention as an effective means to conquer an obstacle. However, in order for a disabled person to utilize a computer, the system which use is difficult and supports use in the usual state is indispensable. Many goods for that are developed now. Moreover, the goods, which utilized these information technologies, are developed, and these name generically and are called disabled person support system. A disabled person support system is roughly divided and is classified into three. It is three, the software, which compensates one with an insufficient function by OS at the support function of the operating system (OS) of a personal computer, and the next, and the hardware that mainly utilized the information technology. While much goods are developed now, it is reported that there are many goods going wrong, and if commercial production is not necessarily easy. The failure is called failure (extracting specification cannot be finished and commercialization is impossible) of the functional side in a research-and-development stage, and failure (a user is hard to use although commercialized) of the use side in a commercialization stage, is large and is divided into two points.

However, it is also a fact that there is a company, which succeeded in commercial production and has succeeded in development and sale of a disabled person support system.

When the example of these failures and a success was analyzed, it was thought that there was a factor of four points.

First, Making the mechanism grasp a user's needs correctly, and consider as the development form of the product to reflect, and it is heard from a user that direct needs are.

Second, They are last and the middle user participation type development technique as know-how, which makes the product that matched the user.

Third, The difference in the environment in the stage developed and produced commercially

Fourth, The difference of the amount of information, such as an auxiliary system of making curtailment of development cost realizing.

In addition, although the development technique, which reflects a user's needs correctly, is a big element in order to succeed, a user has to mind that there are two. First is Final-users and Second is middle users. The needs grasp which utilized these users is one key of a success. Many of problems are that a development fund is inadequate. The feature of a support system tends to serve as other kind small-lot production. The feature of a support system tends to serve as other kind small-lot production. Therefore, it becomes impossible to expect the amount of sale, and the dilemma that reservation of profits is difficult is held. They are also the conditions for it being successful in development to solve this problem. For that purpose, the information gathering which leads to diversification of risks cannot lack the technical development by the public institution where the information on an auxiliary system is important, for example, a rehabilitation center, the university, etc., the joint research development between companies, etc. Moreover, for disabled person support systems development, you have to avoid the radical development form a big burden is predicted to be to the user whom it takes time to be incremental, and for continuous development to be important and to be which centered continuous development (upgrade) of the same goods on the user adapted to new environment, such as a disabled person.

In this paper, the above problem is solved and the R&D process model in which the R&D process of a success company was made to reflect is proposed.