The Lean Analysis of the Business - Lean-Factors and Lean-Characteristics

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1. THE BASIS OF THE LEAN-ANALYSIS

Lean Analysis serves to point out the possibilities and measures of a business so that the required time-, cost- and quality targets in the preparation and manufacturing of products in line with real market conditions can be put into practice most favorably.

The basis of this analysis are the surroundings and the market with its future developments, the business with its current structures and strategies as well as an analysis system consisting of efficiency-determining lean-factors and lean-characteristics. In the course of this analysis a target system specific to a certain business is developed out of these 3 elements and the present state is described. As this target system strongly depends on the surroundings, the business itself and the correlation between these two, it has to be adjusted during the analysis in loops of recurrence parallel to the ascertainment of the present state. After the final description of this state, the necessary potentials and measures can be identified and determined concerning their meaning.

Process of Analysis

When describing the target system and the present state of the business, it has to be distinguished between factors of influence and characteristics. The factors of influence can be changed directly by using suitable measures and methods whereas the characteristics serve as a measuring system for the description of the actual processes in a business.

Thus e.g. the quality-initiating time characterizes the problems occurring at the interface between product development and production process as well as the penetration of a preventive quality securing.

Both groups of value of the "lean-analysis" are only significant as absolute references compared with the extensive data material of the business line or of similar businesses, which have almost achieved the optimum structure. For this reason, potentials can be deduced more easily if the classification of values is oriented at the target variables of the business in question.

It must be aimed at measuring against the requirements of the future market, not against the average business of the respective line. The target variables of the factors of influence depend decisively on the outward influences of the market and the structures of a business.

The influencing factors have to be designed according to the factors determining the success of special sectors and interfaces in the whole process. The complete target system is compiled together with the data gathering for the representation of the actual state. This takes place in loops of recurrence and represents the actual part of the analysis.

2. STRUCTURE OF A TARGET SYSTEM SPECIFIC FOR A BUSINESS

In order to get an explicit idea of the target system significant for the business, the outward influences of the market, the technologies, the product and the production process itself as well as of the general surroundings have to be stated and with regard to the development of the future influence be assessed. It is essential that not a "flashlight" photo of the actual situation serves as measure, but the dynamic of the factors which are considered.

There are 3 ways for a business to gain advantages in the market:

- by means of produkt innovation
- by means of process innovation
- by structure innovation such as service and sales promotion

The importance of the different sectors and interfaces in a business depends on the correlation between the meanings of the types of innovation mentioned above.

The description of success responsibility and importance of the different sectors of the business depend on the optimized design of all parameters and factors of influence. For most parameters this expression is oriented at the demands of the market.

There is for example a dependency of

- the R&D-expenditure on the innovation pressure of the market

- the importance of the interface between development and sales and the technical form concerning the share of customer projects and products made to customer's specifications.
- the necessary market and procedure flexibility of the business on the dynamic of the market,
- the optimum manufacturing and development depth on the number, the dynamic and the half-life period of the corresponding technologies.
- the method of integrating the suppliers in the phases of product development up to the "just-in-time" concepts on the product and process structure.
- the optimum innovation speed concerning domestic products on the competition structure
- the importance of an explicit modularization of products on the market dynamic and structure of clientele
- the necessary closeness to the market on the competitive situation
- the importance of the interface between development and production and assembly on the number of parts produced and on the lot sizes
- the organizational structure and the importance of the integration on the sectors and the expression of project management

These contexts can be reproduced in portfolios which show how a business can react to the requirements of the market.

Connection between requirements and factors of influence

3. ASCERTAINMENT OF THE ACTUAL SITUATION OF THE BUSINESS

In the following, the particular lean-factors in their form of appearance must be collected and evaluated with regard to the identified and fixed target structure. Furthermore, the lean-characteristics will be considered and presented. These can, for

the most part, only be described quantitatively. An expressive illustration, however, requires also an assessment of the quantitative values concerning their importance for the business.

This data gathering can be supported by questionnaires which are used for the ascertainment of larger basic units. After having terminated the data gathering, the lean-factors and lean-characteristics for the businesses can be described.

Illustration of "Lean Position" of the Business