Variants and Network Management – Success Factor in the Motor Industry of Tomorrow

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Abstract:

The times when cost reduction was reached by lowering material costs excessively are nearing an end. Especially for the automotive industry, the future potential lies in an efficient design of the variety of variants and the relations within the value networks.

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Variants and Network Management – Success Factor in the Motor Industry of Tomorrow

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Own project experiences and studies of different sources illustrate three important changes for the future of the motor industry:

1. The automobile manufacturers will pass a further added value on to suppliers to concentrate still more strongly on their brand stamping competences.

2. The subcontractors will have to grow further and to build up development competences of their own increasingly.

3. Automobile manufacturers will reduce the number of their suppliers. The line of business of the subcontractors will pass through a strong concentration phase at the same time. In parallel, the variety of the products will further increase and the real net output ratio of the manufacturers sink further. The product life cycles are shortened at the same time.

A complexity of products and processes which results from it must be handled jointly actively. The phase of the material cost reductions is drawing to the end while the optimization of the relation complexity is moving to the foreground. Only the manufacturers and subcontractors who cope with the complexity of the changing relation network will have success in future.

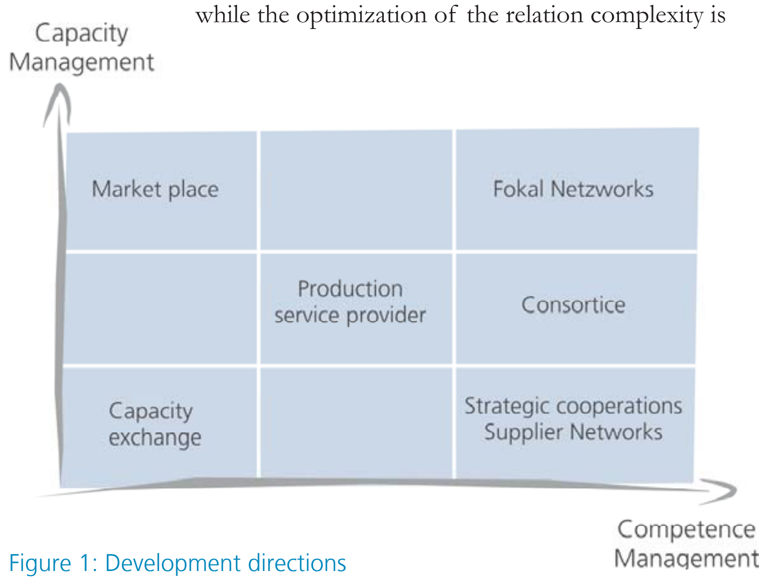

Figure 1: Development directions

Who will concentrate on what?

Not all the automobile manufacturers will pass added value on to subcontractors on the same area and scale. It depends on the positioning and the brand image where and how this far this happens. For manufacturers of sporting vehicles in the quality segment the areas of under-carriage and drivetain are of highest importance for the brand formation. These critical components are still covered with development know-how of their own and produced with a high manufacturing of one‘s own quota in the future. For manufacturers in mass markets this is not the case in the same measure. Here the quota of the added value will decline also in these areas. For all market segments the areas of marketing, product planning, software and electronics, design, sale and service will be the core competencies. Altogether, different elevations to the future added value of the manufacturers start out from a fall in till now approx. 35 % to approx. 23 % in the year 2015. Much of the added value was already excessively shifted to the outside by single manufacturers and in special areas. Undesirable developments of the last years which were caused by an over-emphasis of single measures are cleared partly by the reconstruction of competences at the manufacturers today. At the general trend towards the repartition of the added value, however, nothing will change (Figure 1). The conception of oneself of the automobile manufacturers will change from the producer to the supplier of individual mobility. The tasks of the protagonists involved and the type of the relation between manufacturer and supplier will also fundamentally change with that.

Planning the product range complexity- The change from the dependent supplier to the co-designing partner

For the future the manufacturers must still more strongly than till now fix the offerd product complexity by visualizing and translating market requirements exactly into product functions. The tasks of the strategic product planning, the requirement management as well as the variant planning in the early phases of the product development therefore gain weight. Only by specific use of a restricted number of suitable methods the manufacturers will be able to to establish stable and standardized product developments which can cope with the demanded variety and the necessary dynamics of the vehicle developments reliably and efficiently.

In future the often established product line managers' will have to answer question of possible suppliers and the production and logistics planners of one's own already earlier in the product development, which number of variants shall be offered for a new model.

The automobile manufacturer must use the possibilities for the creation and use of communalities in the complete product range of the enterprise consistently in the early phase at the same time to not cause unnecessary and expensive variety in the planning already. Only if the necessary realization processes are lean due to a good planning in the early phase, the product range can be successful economically later. The pure costs of the physical component can represent only a partial target of the cost-orientated development. Small, efficient development teams in efficient networks at which the later subcontractors are involved early, make the success possible.

The change from the dependent supplier to the co-designing partner

The tasks of the subcontractors in the added value nets of the future motor industry change still more strongly than those of the manufacturers. The subcontractors must build up at least the same capacities which will pass the manufacturers on to added value and development know-how. This concerns primarily the areas of industrial capacity and development know-how. A progressive concentration in the line of business is an almost logical consequence since only by acquisitions the required capacities can be provided in the scarce time. Already today, some development service providers have already been taken and integrated by great subcontractors according to the competence building. The chance for the subcontractor as a partner lies in the usage of the liberties given by the set of requirements and functions for component which enables him to make use the advantages of the architecture design. Manufacturing after subscription loses increasingly meaning for the subcontractors of the future.

The product manager has more possibilities as today of forming the physical product structure so that the use of identical parts and different platforms leads to internal efficiency and with that reduced costs of ownership with the subcontractor. While the product line manager of the manufacturer is holding the control levers in his hands for the control of the product rage complexity, the product manager of the subcontractor can use his spaces to move to influence the product complexity positively.

He has more possibilities than today to realize the demanded variance for his enterprise by the arrangement of product architecture up to the choice of the production and assembly site e.g. efficiently. Particularly, when the subcontractor is tied into the planning intensively already in an early phase, he will be able to make use of the potentials of the new added value partnership.

Easily comprehensible networks are prerequisite for efficient cooperation

The potential to hold the costs of increasing complexity with that the range of product around are for the large part the relation design and the connected transaction costs. This applies so to speak to manufacturers and subcontractors. Outstandingly successful manufacturers already strictly take care today that their network does not exceed a critical size e.g. at partners in the area of the research and development. With the number of partners in a network the communication and coordination effort rises explosively. Enterprises can cooperate in permanently existing, active partnerships with subcontractors and service providers effectively and realize the potentials of optimized internal and external processes simultaneously only with a low number of reliable partners.

Network construction and design - key skill of successful enterprises

If the change completes itself almost inevitably in the areas of production and development between manufacturer and subcontractor, in other areas it leads to competition. Both sides, both manufacturer and subcontractor, will have to build up competences more and more in the area of software and electronics and compete around the resource knowledge at the labour market here.

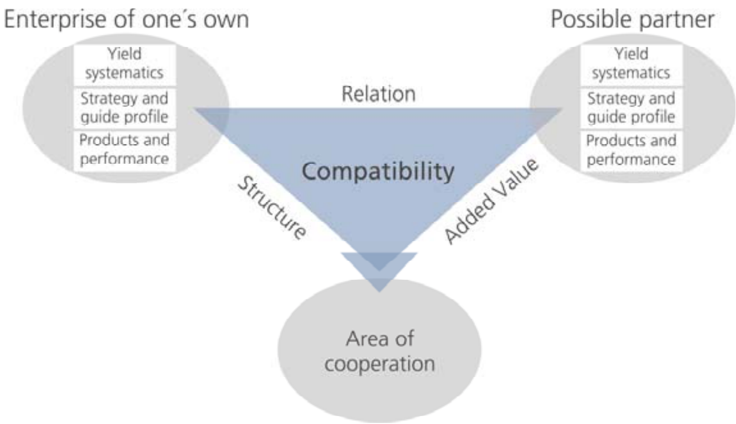

Figure 2: Keyfactors at the construction of highly developed added Value Networks

To be able to work despite this competitive atmosphere around central resources basedly on partnership together in the long run, every partner must know his contribution to the added value in the network exactly and be ready to accept his role and to fill out (Figure 2).

The ability to find and to select suitable partners for an added value network is both for subcontractors and manufacturers deciding in future, to proceed successfully. For the successful construction and more still for the successful work a multifaceted look at the possible partners is necessary. Of course the abilities and the structures of the potential partners must harmonize. It is, however, at least just as important that the aims of the partners match each other for the cooperation and the different corporate and cooperation cultures allow an efficient cooperation. The chance only then insists that the real central resource of such networks, namely knowledge, can be used for the success of the network (Figure 3).

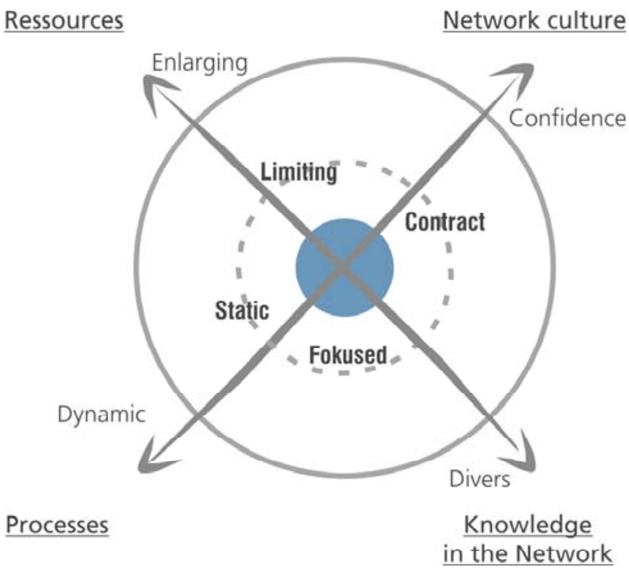

Figure 3: Design dimensions of modern added Value Networks

Which answers can your enterprise give on the futures questions?

This change in the motor industry raises a number of fundamental questions for the responsible persons in the enterprises on which they have to give substained answers in a short time. How can my enterprise handle the variety of my products as well as the always far increasing dynamics purposefully and efficiently? On which areas will my enterprise have to concentrate to be an attractive partner for customers and suppliers? How do I find the right partners? How can I efficiently work in a network?

The Schuh & Company has developed an integrated approach to be able to lace a coherent and realizable measures package up for our customers. The approach helps to obtain clarity more than three important questions (Figure 4).

1 Where does the enterprise can and wants?
Every enterprise has its own strengths and weaknesses and therefore can not take on every role in a network. Only, when you know what is possible, you can set the direction also realistically. We analyse the being situation together with all decision makers involved in your enterprise and/or network. We orientate ourselves at the ideas of the St. Galler management concept. Result is a copy of the available strategic consistency of all relevant dimensions of your enterprise or network. We develop together with you a picture of the future on this basis for your organisation which conducts the decisions on ways and steps.

2. Which way shall the enterprise go to the aim?
There are many ways around of reaching the aim. Which one is suited better we work out in special workshops? The previous step already gives a first reference to the priorities. General is it a decision between the focus on the strategic product planning and design and the strategic process planning.

Figure 4: Systematics for the masterin of addet value complexity

Either or does not exist in today‘s complex world one any more. Result is therefore a prioritization of the direction of impact for the focus of the measures to be realized.

3 **Which steps must it go on the way and with which one does it have to start?** The variety of possible measures reaching one aims stand for the choice, the duration is also different up to the entering the effectiveness. We offer you an extensive fund of practical methods and these helps you to systematic right select your aims and take it to a temporal sequence. With the correct answers to the correct questions your organisation will be able to master the challenges of the future more successfully than your competitors.

Result

The measures for the material cost reduction will have lower effects than in the past in future. The next phase of the cost optimisation will have to take place about the processes in the added value network. Those which succeed in designing the relation complexities of the new added value structure impact on profitability will have the decisive competition projection.

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