STRATEGIES FOR GLOBAL PRODUCTION.

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Abstract: This article is devoted to changes to existing manufacturing strategies that are oriented to production for such policies, which respect the requirements of the customer and allows the production for the global market. Production reprofiling to reconfigurable manufacturing, intelligent manufacturing systems is crucial.

INTRODUCTION

Production based on large series make profits, but only from production scale and not from the range. This can lead to gradual loss of market position. This negative effect arises from the fact that the factor of time and changes in market needs is ignored.

Space for competition opens for companies with a strong ability to innovate, to offer their products to individual customer's needs and time of needs. However, current production is to this goal inflexible. Success brings manufacturing cells characterized by high adaptability to frequently changing production conditions.

1. FACTORS INDUCING A CHANGE OF MANUFACTURING STRATEGIES

For the current economic environment is characterized, that enormously increases the sharpness of competition, a variation of products is required, fast-emerging new products, new producers, suppliers and their terms are changing, extends the functionality of the product, shortens the product life time, shortens the supply term on the market of the new product, Fig. 1.

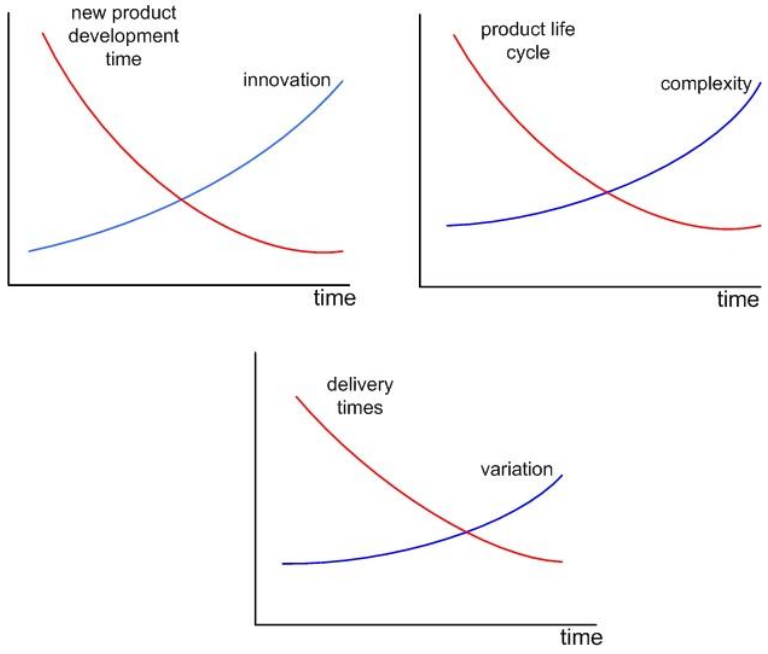

Figure 1. Flowcharts

Market for the producer extended to the entire world, it also stems from the diversity of requirements for the product. The heterogeneity of market produces factors, such as taste, preferences of different values, and the geographic diversity of lifestyles and so on.

The decisive factor for getting customers today includes precision, smartness, originality and attractiveness. An effect of routine does not work, but creative ideas, rapid innovation and exceptional service works. This opens the way for competition for companies with strong innovation ability. Who always comes up with something new has an advantage. The advantage achieved by excellent new products increases, if these are produced in the shortest possible time.

These turbulent changes entail phenomena that market opportunities rapidly emerge, but quickly extinguished. That for company means risk and uncertainty. Necessary becomes not only the managers arts, as soon as possible to identify new market spaces, but for their quick cast also the art of flexible manufacturing and rapid adaptation. It is quite logical that the company is forced to change existing manufacturing strategies and guidance to achieve their competitiveness steadied and thus consolidated the economic effect. However, current production, although it is based on flexible manufacturing cells is not sufficient. Its structure is rather for the "stable" production although as a result of flexibility allows some improvements. Moreover, the "scope" was for the local market. Today, the success of production brings effect on the global market.

Manufacturing cells are considered like standard highly productive production system, which in practice has proved its viability. Many manufacturing cells already have multiprocedural profile. The current concept solutions of manufacturing cells designed to achieve high flexibility are no longer sufficient. Their disadvantage is that they are oriented only on the flexibility in the function changes. Requirements of the global market (high variation of products) require a change in the cells structure. Occurs era of so-called reconfigurable manufacturing systems, Fig. 2.

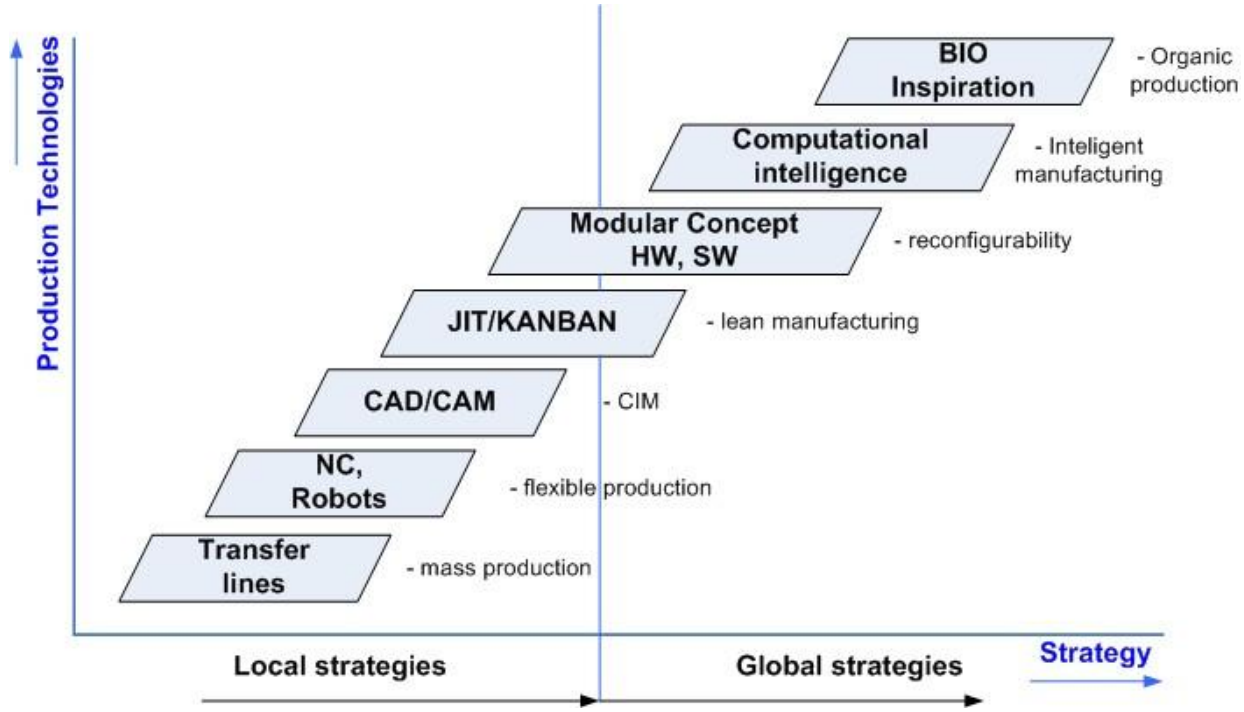

Figure 2. Development to an era of reconfigurable manufacturing systems

Reconfigurable manufacturing systems are characterized by their adaptability both in hardware and in software which provides flexibility in changing the functions and

structure of the manufacturing cell. While until now the manufacturing strategies were based on production, that it was effective, so now if they want to be successful, they must focus on the customer, Fig. 3.

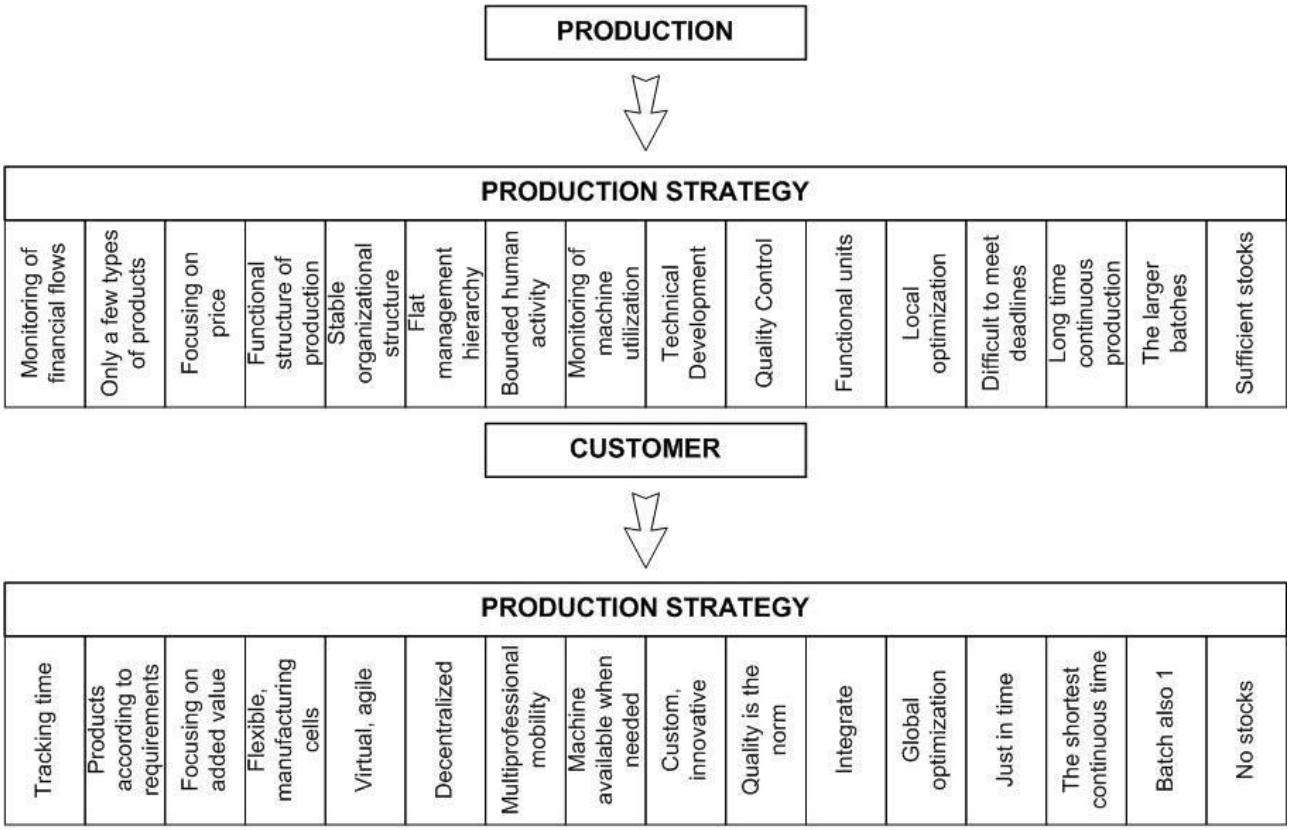

Figure 3. development to an era of reconfigurable manufacturing systems

CONCLUSION

Today's manufacturing environment is characterized by a high degree of globalization, resulting in his sudden and frequent changes. Manufacturers must find effective ways to meet the demand with respect the time, financial, qualitative and quantitative aspect. Traditional production systems already cannot satisfy the necessity in today's turbulent environment, which results in the introduction need of manufacturing strategies that allow rapid response to changed market conditions, while maintaining high quality products, at low cost and satisfactory production volumes. A typical example of such a production system is a reconfigurable manufacturing system. It is very difficult to evaluate investment in building reconfigurable manufacturing systems, because this evaluation is handled by traditional methods and those are unable to properly assess the potential benefits. Typically, many companies move only by simple replacement of old machines with new ones. However, global market trends clearly point to a growing differential in the product structure and functions. Present production is unable to handle these trends, so the starting point for companies is the current production reprofiling to reconfigurable, intelligent production.

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