

NEW ORIENTATION IN PRODUCTION

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Abstract. Production complexity has imposed its place lately upon the enterprise and the passing through the morphological approach which identifies the stocking manufacturing places and the flows of goods, up to the definition of the manufacturing process.

Nowadays, production tends to reoccupy its central place within the enterprise, from this it is resulted through a careful approach of the subject in the management colleges, in scientific literature, reevaluating the production system by the enterprises.

Enterprise of XXIst century is no more essentially mechanic, however it has plenty of cars. This fact brings changes in industrial management wherein there is fortified a production theory relied on four concepts: static thinking, general bookkeeping, modular management and systemic approaching.

In this paper deals with the concepts on which the new production theory is based as well as the main features of the XXIst century enterprise.

Keywords: production, statistical thought, accounting modular organization, systemically approach

Long time ago, there was considered „production” as main function. Then, in proportion as production enterprises were overrun by service enterprises (after 1990), production within enterprise became a kind of Cinderella. But during last years (after 1990), production activities, have regained a privilege place, attention passing from marketing or financial activities to production. This thing was necessary because a production amount, few times bigger, was realized by means of methods over 40 years old. The existence of these contradictions has made the accent to be modified for production. Nowadays, production tends to regain its main place in enterprise, thing that is seen in a bigger attention granted to this subject in management schools, in scientific literature, in re-examination of production system by enterprise.

The opinion of many experts is that in West, during last decades, there is forgotten that production is the first source of good life. At least after 1970, production has had a second position in West. Galbraith thought for example in 1958 (in the book *The Affluent Society*) that „America has solved production problem”. He took the conclusion from the fact that during the decade '50-'60 masters worked more in marketing and public relations. Hence, then marketing, finances, projection men have considered a distinct entity

from production, forgetting that they have no reason without production.

Thinking that, Rupert Murdoch remarked in the past that industrial revolution didn't follow by a social values one, industry being considered coarse. Social prestige could be reached using industry capitals from far of industry.

Otherwise than in West countries, Japan kept the idea that production is strategic pole of enterprise. Experts remained surprised seeing that here event economic strategy of the country is directed to production. A Morita, the president of “Sony” think that an economy can be strong just how its base is of manufacture type. An economy which doesn't make goods, can't invest in own development. An economy whose increasing is relied just on services is built, on his opinion, like on sand.

Nowadays, at the beginning of millennium, the enterprises of USA have recognized the rightness of Japanese formula. Production, after it was main vector of business till about 1960, lost this importance before 1990 for getting now a new impulse.

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bookkeeping, modular management and systemic approaching.

Until now, the statistic was considered only a necessary instrument for production. But now, it has an impact over the whole enterprise. As there is known, now statistic control evaluates the quality that can be got using certain process and show where there are the making problems. Now, statistic control is getting a bigger role, it shows the impact of every change in the whole process, being able to simulate the effects of every purpose of changing.

However bookkeeping hasn't now a privilege place in XXIst century enterprise, it will have an important role but bookkeeping will clearly differ from what is known, it becoming „making economy” which is based especially on cost recording.

Nowadays, direct allocated costs represent about 20%, the rest of 80% being assigned almost arbitrary. The same time, there are still ignored the costs of the stagnation of economic process (engine stopping, fault cost) but this kind of still stand affect the wages, the expenses of heating and hall lightning, the impost etc. Traditional bookkeeping system is hard to renew, hence the tendency is of its replacement with another wherein the measure unit to be the time.

XXIst century enterprise won't be a productive „unit” but a group of units linked to production process. (Peter Drucker appreciates that „instead a big steamer will be a fleet of small ships”) and hence, General Motors' example (General Motors is a group of enterprises specialized in making production and montage), will remain still actual. Leading of this units necessarily demands that each to know general strategy. Being bound to production process, every unit must have flexible self-working that insures a continuous accommodation to a changing environment. The same time this needs a better communication, XXIst century enterprise being an informational network.

The last expected concept is that of systemic approaching. Unlike Ford, that at the beginning of the century has built an amount of iron and steel enterprises, work out and assembly enterprises, glass enterprises, rubber plantation for tires, railways for transports etc. actual production units are not so much controlled but better coordinated. In the new conception, distribution and service are an extension of fabrication, a component of production system.

The New theory of production, relied on these four concepts, has also another reason. As how there is observed in industrial management history, after industrial revolution also it produced an evolution in management thinking.

If at the beginning (1800) enterprise was considered like a car collection, the same time with Taylor (1900) it has considered like a manifold of operation and now (2000) like a sum of afferent costs to technical operations. The four new up mentioned concepts are synergic. Together and only together they can replace the fights which appear in great production: men-cars, time-money, standardization-flexibility and functions-system.

Re-evaluation of industrial activities has clarified also the term „production”. Now it can be defined as like the chain of activities needed to product making. The new thing is the domain of covered activities. If at the beginning „production” has covered working and montage activities, it extended then at technical control services, reparations, internal transport, tool management, for now, to enfold also marketing, projection, providing, delivering, service.

Production complexity imposed last time its re-positioning within the enterprise and passing from morphologic approaching that identifies transform places, storing places and the fluxes, at transforming process definition. But also in this case there is observed different stages which finally bring to the concept of pro-active enterprise directed to the customer.

In classical approach of production, it considers that is a stationary interaction between the components of two activities: „making” and „purveyance”. In this case production problem was to establish minimum cost which can satisfy a demand known in a finite planning while. Solving solutions (strategies) were, this case, the following:

- Constant keeping of working force and the absorption of demand changes through accumulation and exhausting of stores.
- Keeping of a minimum level of investments made for storage, as employments and dismissals to fit to demand variations.
- Keeping of constant working force but putting of additional work or acceptance of lacks of production. Therefore, there is possible leaving out of workers which ensure the maintenance.

The parameters which must be respected in these strategies are: working force size, store size and time fund.

In the last 20 years, especially in Japan,

there are structured new methods for production driving. International literature use for particularize then, the term „New Performing Systems” – NPS. These represent complex management methods that give a new perspective to production leading, including:

- Whole management of fabrication
- Whole management of quality
- Total maintenance of productive systems
- Whole implication of employers
- Total industrial engineering

These methods have made the first NPS generation.

Second generation is represented by specific methods as:

- „Just in Time” production (JIT);
- quality function development;
- continuous improving system;
- new management instruments etc.

As how Taylor’s model has become after a few decades, the logic and invisible structure, but it is always present in classical management, is to be preview that the new operative systems will follow the same way, becoming the base of the future production. These methods are already developed and used in industry, their using in Romania demanding a „technical transfer”.

The changes that have had place in production, made Daniel Bell (1965) to name contemporary period „postindustrial”. In postindustrial époque, managers must be especially flexible and able to accommodation to changes.

Thus, nowadays enterprise is characterized by the following features:

- Economic increasing is guided by sectors relied on science and advanced services. Productive force is based on innovation capacity.
- World spreading process of economy makes the enterprise to work in an opener competition wherein the protectionism system loses importance and the knowledge and technical competence, innovation capacity, cooperation ability, becomes the main.
- The ponder of productive places in enterprises tends to decrease and adjuvant services tend to clearly influence production process efficiency.
- Enterprises aim to externalize an increased number of activities. Productive activity is accompanied by coordination of a complex network of sub-delivers. The advantages appear from management intelligence and less from production costs.

- There was changed the sense of the notion of needs that must be satisfied. Many years ago, there was spoken about customer’s necessities. Now there are also noticed both enterprise necessities and society ones.
- There is no more link between quantity consume and quantity production
- For the rapport quantity-quality, the quality is essential. In the past it was spoken about a tolerable quality, about a conformity quality. Now, the accent is on the perceived quality.
- There are increased the investments for professional competence increasing, for creation of new cooperation mechanisms and also for management intelligence development. These are considered now the ways which lead to productivity increasing.

Changes in production appear also grace of industry evolution because they have also a life period characterized by some individual features. The stages of life period are: apparition, expansion, maturity, recession.

Known industries are in different stages:

- Oil workout is near grown up;
- Coal is still a protected market;
- Steel is in crisis of accommodation;
- Food industry goes to concentration in big firms;
- Textile industry creates itself a variable feature;
- In pharmacy industry is a narrow competition between firms;
- Car industry promotes the protectionism;
- Industry of quantity goods is in re-organization;
- Telecommunications are in a transit period;
- Air and space industry promote the collaboration.

Modern enterprise becomes a **synergetic organism** where all compartments participate to production.

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