

Overtime – whereto?

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Abstract. *The overtime with respect to the normal working hours determined by law and organization rules are a source of apparent profit, but when exercised without a strict control leads to rapid “depreciation” of human resource, causing alienation and stress. Overtime abuse indicates ignorance of the main vector for growth and organizational and social development. Managers should make efforts to understand these fundamental truths instead of pushing the legal limits to risk rules reinforcements by the control authority.*

Key words: aggregate programming; aggregate programming additional costs; overtime additional costs; employ/release; shortsighted managers; economic model; socioeconomic model.

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JEL Classification: A13, J22, J24, M12, M50, O15

1. The demand game

The variation of demand at the moment t (Q_t^D), particularly in the highly competitive environments with a system of customers driving the suppliers' behavior, is the free variable of the goods and services processing system. *Matching demand is the essential paradigm of every organization.* Actually this is achievable in three steps: forecast, plan and program. For the organizations in the current context, the *aggregate programming* is added between the later two steps, to improve efficiency. This allow managers to reach a certain processing level based on the estimated demand and using a global representation of the resources.

The decision making rule is as follows:

$$Q_t^S = Q_{t-1}^S + A \times (Q_t^D - Q_{t-1}^S)$$

Where:

Q_t^S, Q_{t-1}^S is the level of processing at the moment t and $t - 1$, respectively;

Q_t^D the level of demand from consumers at the moment t ;

A a constant belonging to the $[0,1]$ interval.

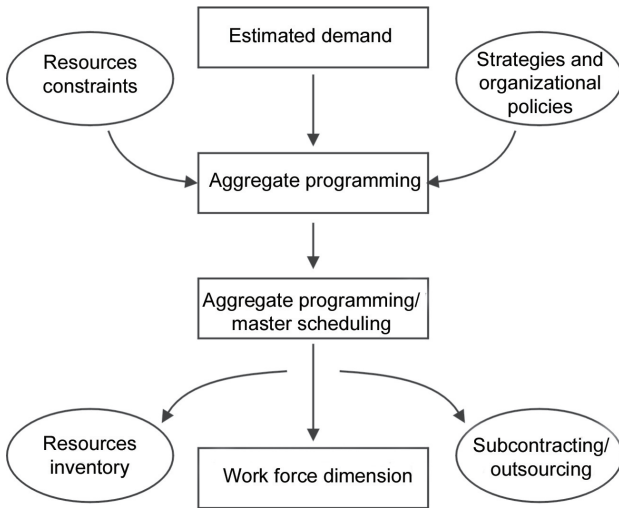


Figure 1. Aggregate programming process synthesis

The case $A = 0$ corresponds to the uniform constant processing strategy, whereas in the case $A = 1$, the strategy is to follow the demand curve, and although the later is the more effective, the question arises whether the organizational resources suffice to achieve this desired goal. The answer is negative more often than not.

2. The additional costs of the aggregate programming or a solution

To achieve the dynamic balance between the functions Q_t^S și Q_t^D , the aggregate programming offers a system of additional costs, and although they are not represented as such in the accounting of the organizations, they influence or determine their performance. Thus, we may mention:

- the additional cost with the inventory maintenance, the inventory being required to absorb the demand fluctuations;
- the additional cost of employing/releasing work force to follow the demand variations;
- the additional cost of increasing/decreasing the labor hours;
- the additional cost of subcontracting work to other organizations;
- the additional cost of the short supply of goods and services;
- the additional cost of the part-time work etc.

If we use the notation C_i for each additional cost considered, rational managers pursue the following function of the aggregate programming:

$$\min f = \min \sum_{i=1}^n C_i$$

Where n represents the number of additional costs used by the decision maker;

3. The overtime additional cost

The top theories advance combinations of additional costs (combined strategies), but in practice there is a preference of certain additional costs such as the overtime used with ability, in such a case $Q_t^S > Q_m$, where Q_m quantifies the level of processing according to the internal rules of the organization.

Due to the excessive use of this additional cost, we will analyze it regardless of the others. This additional cost is determined as follows:

$$C_{ms} = c_{ms} \times (Q_t^S - Q_m)$$

Where:

c_{ms} is the unitary overtime additional cost, with respect to the unit of good / service.

Logically:

$$c_{ms} = k \times C_m$$

Where:

$$k \in [1,5 - 2]$$

C_m is the cost of the legal time labor.

If the demand variation is not extreme, a rational managers decision could be:

- i) Keeping the competent workers;
- ii) Investment efforts including employment if the demand stays over capacity for longer; another efficient and effective solution is also the *part-time* work, which usually generates less costs than the *full-time* work;
- iii) Using subcontracting, outsourcing or offshoring of some products or services.

The solutions above should not be taken in absolute terms because they have their shortcomings, as for instance the lack of skill and experience in case of *part-time* work, or reducing profits, lengthening the processing cycle and even stimulating potential competitors in case of subcontracting. Offshoring is a rather new technique to outsource certain services in cheap and qualified labor countries (for instance India, but also Romania). However, this method is usually employed for support activities rather than the main activity, for instance for payrolls and human resources management, lacking relevance for the demand following strategy.

With all shortcomings, the solutions above are useful and keep labor in a normal process economically and socially.

4. Other factors which lead to overtime abuse

Besides the demand following strategy, overtime is due to a couple of other factors.

Firstly, we may remind the systematically ineffective time allocation for activities. Norman R. Augustine, ex-president of Lockheed Martin Corporation, demonstrated on a statistic basis that activities are completed in a time interval greater by 1.33 on average than that initially allocated (Augustine, 1997).

This systematic time budget extension leads to time crisis and subsequently to overtime abuse, if the time reserves are not planned and correctly dimensioned. In this context we recommend the allocation of reserve time buffers for each activity based on the Critical Chain Project Management (Goldratt, 1997).

Another factor is psychological, having less to do with managerial decision.

In 1993, a start-up organization employed just 10 people, without hierarchy, specialization or organizational structure. After the first months of activity to prepare market launch, the business owner decided to examine the employees. Each should rank the others on their contribution to the organization's goals. After gathering all papers, the business owner determined an overall ranking for all 10 employees. He was not particularly interested in the ranking itself as in which employee had a perception closest to this "objective" ranking. He explained that objective and accurate assessment of the human performance is the key problem of the management and he nominated this person with the most balanced perception in the job of general manager, over the other nine.

Returning to overtime abuse, we believe that it is driven sometimes by the desire of employees to show off and even out of a sense of guilt. When assessment criteria are strictly based on working hours, we may end up in such a context with overtime abuse.

A remarkable example is a test performed on members of an organization. The test aimed at identifying factors driving to a better impression about the work of a member of the organization. The test consisted of two questions: "Who is in your opinion the most dedicated employee? What is your judgement based on?".

To our surprise, the person indicated by most respondents was a rather ineffective and inefficient director, who spent most of the time in the office. His quality was loyalty, but he was always late with his tasks, and for this reason he was the first to arrive and the last to leave. The results of this director were insignificant as compared to others, and with respect to his willingness and diligence.

We thus identified the mechanism of guilt, which favors the one who seems to sacrifice himself for the firm. Curiously, some much more productive directors were feeling guilty, directors who could take 10 minutes to solve a problem which consumed a whole week to the former director.

The bad organization is yet another key factor to induce overtime. For instance, in Romania all companies are supposed to close the financial year on the 31st of December, which puts an enormous pressure on accountants, auditors, asset managers and the like. A more logical approach would be to avoid this assault by using a rotation method, as in other countries: 1/12 of the companies end the year on December 31st, 1/12 on January 31st etc. The assault is thus avoided.

5. Romanian organizational realities

The overtime is constantly used in the organizational strategies, and yet it is limited within the working day and within a time interval according to the master scheduling or the aggregate program. Thus, a limit recommended by managers in developed countries is three months, beyond which, depending on demand fluctuations and internal processing capacity, employment and release decisions are taken.

Managers of certain companies in Romanian (for instance some multinationals) ignore this limit of twelve weeks of overtime extension, claiming the lack of efficacy and ferocious competition. In reality, this is a symptom of lack of organization and of managerial performance.

Moreover, the uncontrolled overtime prevents human development and progress, which is the most valuable strategic reserve for every organization. Shortsighted managers take sides for the "economic" model, which claims that the company is better off with a profit-only oriented approach. In the same time the employees fall in this "trap" without a realistic long-term analysis, but is it possible that an educated young work force to do such an analysis under the circumstances of the hierarchy of needs pyramid and the realities of the prolonged transition economy to the real institutionalization of the market mechanisms?

We believe the answer is negative, and the organizational behavior gets polarized to the extremes. One part resort to primordial needs, but declines individual and ultimately social development, whereas the other part, in excess of 50%, gear up to the profit making machine, pursuing their own financial support to face a turbulent, changing and little predictable environment.

Based on both theory and practice, we would need to reiterate the thesis of the 4E based organizational performance: Economy, Efficiency, Effectiveness, and Equity. The first E (in a sense of low inputs with compliance to the specifications), and also the Efficiency and Effectiveness are applied brilliantly sometimes, whereas the fourth (the Equity), with its forms of discretionary ethical and legal responsibility, gets simulated.

We may question if circulated concepts such as “*corporate responsibility*”, “*community involvement*”, “*social awareness*” and others are really implemented.

Some managers should remember the socio-economic model, based on the idea that business is not founded solely on its own profit, but instead on the impact of the decisions in the society, and in this case rational decisions may lead to a profit margin accepted by all *stakeholders*.

6. Conclusions

The business equity applied in the field of labor leaves the employees with some time for their own, for cultural, family and sport activities and through its social desirability turns into a market breakthrough and securing the competitive advantage. Thus, increasing profit is correlated or convergent to a good managerial practice.

Through these conclusions we do not intend to destroy any model, and yet we suggest a wider image than the unilateral economic responsibility, extended to other types of responsibility ignored by the excessive managerial behavior. Otherwise, the future of some organizations will be threatened by flaws in the human resources development. We reiterate the biologic model of the organizations as opposed to the mechanical model.

In conjunction with the overtime, the following ideas and practices are derived from the experience of the authors:

- the overtime would be better viewed as a symptom of bad organization and inefficiency;
- continuous overtime increases risks for work accidents (this theory has been sadly confirmed many times);
- home overtime work should be discouraged (besides respecting rest time, there is a security issue regarding the circulation of the official documents beyond the office building);
- the office hours of the managers should not be subject to accounting (although we recommend

electronic logging), meeting targets is more important; when targets are not met, managers get monitored more closely on terms of effectiveness and efficiency, still not on time spent in the office; is idea is controversial, but we believe an organization is not supposed to rely on managers failing to voluntarily participate as a minimum responsibility level;

- overtime grows when the employee fixes each problem in turn, out of a problem stack; the model we tried to implement is the following: the employee never confronts a single problem, but a class of problems selected from the stack, creating a standard operating procedure (SOP), later implemented in software and automated; thus, productivity increases tenfolds, and in less than a year we end up with 90% of the problems having a standardized solution, leading to a sort of redundancy: the employee sees the things working out by themselves, and develops a sense of guilt and usefulness mentioned earlier; we need to counter this symptom, for instance by stating that “the ideal manager has plenty of time”;
- excessive overtime is sometimes correlated with the lack of understanding of the power of statistics; for instance, in a restaurant opened non-stop we do not need D7H24 supervision; low profile supervision is required in a sample of time intervals only, enough for satisfactory analysis and decision making; for instance, 12 hours a month would suffice, which means a sample base of 1/60
- in many organizations are now implemented high accuracy cost systems, which put pressure on the employees, who are not able to complete all their reports in the working hours and resort to “voluntary” overtime; more often than not, the accuracy of these systems does not pay, they come at an unjustified cost of their own and they sacrifice once again the employees.

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