Essential issues of evaluating the effect of planned obsolescence of products during procurement procedures

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Any development in any field is always directed by formed circumstances. Such circumstances being the result of development in other areas may provide new opportunities tools and be the limiters of various development directions. That leads to a better step - finding new development directions.

There are different development directions in a system which main purpose is profit making. The main direction is the production process analysis for production costs reducing. However, there is always a limit to reduce such costs, which contributes to the development of other areas to achieve the purposes and new ones creating.

Planned product obsolescence mechanism was this new development in the last century. Planned obsolescence is the mechanism embedded in the product at the design stage. It allows the product to become functionally obsolete or unfit for consumption as scheduled. This term was widely publicized in the 1920s-1930s, when manufacturers were looking for other ways to increase profits in addition to production process optimizing.

This mechanism idea is simple. From a consumer perspective manufacturer has always to strive for high quality and durable goods production that is good for the consumer. But such system could work in a limited supply when the manufacturer producing high quality, durable goods would have constant implementation due to the need to provide consumers who do not have the goods yet.

In the case of excess supply system with the durable goods releasing production capacity will be idle, that would eliminate the producer. In this regard manufacturers began to consciously lay planned obsolescence mechanism at the design development stage. That was made to ensure the goods yield down after the scheduled time with the inability to repair, and as a consequence, the need for a buyer to buy the same product. This strategy leads to constant sales volume at the product lifetime reducing.

There are three main components of this mechanism as you have noticed.

Physical obsolescence. This mechanism leads to lower-quality components using that are able to provide only the planned product lifetime. In this case the manufacturer aimed to ensure impossibility of product repairing or providing repair cost comparable to the new product cost.

Functional obsolescence. This mechanism leads to the continuous devel-opment of new features of new products that are not available using already bought product. The manufacturer can also create product using environment that does not allow using the previous generation or the previous version product.

Aesthetic obsolescence. Additional incentive for new product buying can be design development and fashion trends management.

When conducting procurement procedures Customer always develops requirements for purchased products and always determines what criteria will be the proposed products evaluation. In most cases it is not considered in practice how much high-quality and durable products will be bought. Although future cost reducing for maintenance and products replacement depends directly on this. In conducting the procurement product quality and durability evaluation can be made using scoring system. Each customer uses this system for product evaluation on cost, technical and other criteria. In this case the following criteria can be used for product quality and durability assessment, i.e. the assessment whether planned obsolescence mechanism is laid in the product.

Product Lifecycle. When producing any kind of goods manufacturer al-ways attaches data sheet or manual to the product. Normative operation term is indicated in these documents. Product lifecycle will be small if the planned obsolescence mechanism was laid in the product. Thus, such data can be taken into account when production scoring using appropriate formulas.

Repair possibility and repair cost evaluation. The manufacturer will pursue a policy of repair impossibility with partial repair possibility if planned obsolescence mechanism was laid in the product. The repair cost in this case will be comparable to new product cost. The following information has to be provided by procurement procedure participants when conducting procurement procedure in order to assess repair possibility and repair cost. These are all possible product faults, their occurrence statistical frequency (the number of times when the fault appears during the product lifecycle) and the product repair cost in the percentage respect of the new product cost. In this case the repair cost is 100% of the new product cost for problems which repair is not possible. When such data is available the Customer is able to determine the average interest cost of repair mathematically and calculate using the appropriate formulas when conducting products scoring.

Viability assessment. According to the laid functional obsolescence mechanism manufacturer will seek to create an environment of product using which does not allow using the product obtaining all the new optional additions. The manufacturer will not update the manufactured products park in order to obtain such additions by the previous version products.

When conducting procurement in order to assess the product viability the Customer should require from procurement procedure participants to provide information about product update possibility to ensure compatibility with all new optional additions appearing later. In this case such data assessment should be done using the expert assessment method when experts group will analyze the information provided and to expose scores to each participant. This score can then be used during scoring products using the respective formulas.

How important is it to assess the product quality and durability? Of course, the main product evaluation criteria during procurement procedure, i.e. criteria with the highest weighting factors, are the cost and technical criteria. However, every leader should always take into account not one-off product purchase expenses but total long term costs. And the smallest one-off costs in subsequent permanent similar repair or purchase cost of the same product will be much higher than larger one-off costs when quality and durable product purchasing.

Thus it is expedient to introduce the above-mentioned product quality and durability assessment criteria by reducing the weight factors of the cost evaluation criteria. In this case such cost evaluation criteria determination should be defined by the Customer independently for each procurement procedure separately on the basis of purchasing purpose.

This approach to the proposed products assessment will provide the lowest cost in the long term.