



## Management accounting its constraints

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### ABSTRACT

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Organizational transformation that happened in world economy recent decade was accompanied with the concepts of less-profitable production and flexible system. The concepts implicitly provide a production and working capacity that are consistent with demand and current capacity of acceptance. The origin of limited management was higher according to efficiency and imbalance between resources and demand for the resources. There are double restrictions for the private institutions and in all Irish economic fields. The international institutions face with the global limitations about less-profitable productive models. The non-commercial institutes are facing with new problems that are related to lack of employees and other resources while there was recession and low efficiency about resources. Goldratt in her book providing theories about constrains provides a new fields in economic perspective (Goldratt and Cooks, 1993). These managing ideas of best salesman are describing as an exciting story that describes the manager's attempts to prevent the loss caused by performance and the bankruptcy of the company. In the story, Goldratt and Descooks attacked to the price finished accounting as an "enemy to productivity" rather than using developed holistic techniques as on-time production and statistic control of the process. In this article, the relative usefulness of the theory of constrains related to accounting business managing methods are explained to use the resources and decision-making. The article, also examines the spread and evaluation of constrains and reactions that cause accounting and managing culture. Survival of the price finished management that are explaining against the continuous attacks is consistent with the probabilities by Goldratt relating to regulations ability to make changes and obligatory developments as training programs.

### Introduction

Organizational transformation that was occurred in recent decade accepting Lean production concepts and flexible systems. The concepts provide a working capacity production criteria implicitly that are consistent with recent demand and acceptance capacity. Current flourished Irish economy also has highlighted the importance of capacity management methods. The origin of limited management was higher according to efficiency and imbalance between resources and demand for the resources. There is a problem in the local and macro economy or institutional level. The question is that the way of participating in accounting management in managing this kind of problems. Regardless of the contents, lack of premier and updated techniques is considering in the text also is one of the problems.

### Scientific fundamentals of the subject

#### Theory of constrains

Eli Goldratt in her book (The Goal) provided a new field in business improvement as the theory of constrains by her ideas (Goldratt & Descooks, 1993). The managing theories of best salesman is described as an exciting story that the manager attempted to prevent the company bankruptcy during 90 days. In the story Goldratt and Descooks attacked to price finished accounting as an "enemy of efficiency" and

rather used the more holistic developed as MRT, JIT and statistic control process. Survival of price finished accounting against continuous attacks is consistent with Goldratt probabilities in the field relating to regulations ability to make changes and using obligatory developments as the training programs.

An example is the theory of constrains itself. Theory of constrains (TOC) explains the methods to increase the operative profit identifying the operational bottlenecks, and understanding the determining resources of constrains of acceptance capacity of the holistic category.

The bottleneck can be explained identifying the operation in which a high volume of goods are waiting the determining acceptance capacity of the holistic category. Summary of improving the theory is defined in Dugdale & Jones (1998) article.

The theory of constrains is designed and made based on three main criteria:

1- Share of acceptance capacity = sales income – direct cost of materials

2- Investment (share) = goods availability (e.g. raw materials, wip, made goods (just materials) + development and research costs +structure and equipment

Operational costs = including operational costs except for direct materials, salary costs, and depreciation. Then it is assumed implicitly that all these materials are constant, the

assumption can cause many critiques to imagine that TOC measures are short-term applications. TOC aims to increase the acceptance capacity by reducing the investment and operational costs. And this will be done by following a set of relating steps of lack of resources.

**Five holistic steps:**

Step 1: to identify the acceptance capacity of whole the school by lack of resources.

Step 2: to identify the lack of resources that usually is done by considering the place that the goods are more waiting to do the work.

Step 3: to maintain the productive bottleneck as the works and programming all the operation according to its need to constraint resources causes the production program to be designed based on other resources and in this situation a place is considered for other machines or operations. Increasing the production only causes the increase of goods without increasing the acceptance capacity. TOC aims to limit the goods availability during the construction. However, TOC supports the volume maintenance of goods before machine bottleneck to ensure that the machine unexpectedly does not rest unemployed.

Step 4: to evaluate the system problems by increasing the system capacity becomes possible if the increase of acceptance is more than spent cost to development.

Step 5: if there was a constrain in each above steps, return to step 1.

Goldratt divided TOC into three sections as Drum, Buffer, and Rope. The results provide a direction for production by which machine constrains are followed (Drum), by following this, the machine saved the probable storages (Buffer) if it is necessary, the raw material were saved or released according to customer's demand (Rope).

**Theory of constrains & accounting**

Goldratt and Descooks (1993) reasons are explained in story of "The Goal" to identify the costs accounting as "the first enemy of the efficiency" in the story. The heroin (Alex) understood that simultaneously with stopping the production at a machine bottleneck (following Drum) a reduction in the capacity is reported to managing director. New criteria as well as costing based on the activity (ABC) can compensate common accounting weakness that are operating based on absorption costing by making higher motivation for higher production in each activity and less steps maybe by longer performance and external production with resources without constrains. Generally, TOC instead of providing information to control the management or production costing, will provide some information about the decision-making.

Jones and Dugdall accepted the TOC as competent with basic model as the heroin of the story of (The Goal" that wanted to increase the profitability of the company, however, dismiss of employees was referred implicitly that in the sale model, it should be limited to the bottleneck points to reduce the costs. In next model as the differences were accepted that it should be tried to find new customers or having more sales to the customers to remove the limitations of demand. Hence, the deals are different with the profit concept and ignore the methods of managing methods (p. 88).

**Management accounting and capacity of acceptance accounting**

Despite of different ideas, TOC is consistent with the managing accounting both theoretically and scientifically that is described already in book entitled "The Goal". The aim of increasing the acceptance capacity at the same time with reducing the investment and operational costs can be considered as the old rule of accounting that is limited as a short-term decision-making to increase the acceptance capacity for each unit of resources that was defined before issuing the book of "The Goal". The method of Goldratt often is described as the acceptance capacity accounting.

Goldratt support of costing marginal costing shows her critic about the existence of costing weaknesses that there are often in accounting culture. The critics are correct but not new. They are also not sufficient to identify that it can use the different costs for different aims. This is real that the institutions have absorption costing systems for their financial reporting systems. The availability reporting systems do not prevent using the marginal cost information of variable costing at least for some decision-makings. Clark (1992) and Pierce and Odea (1998) both explored that the real volume of use of cost – volume – profit analyses (CVP) is 82-85%, of course Pierce and Odea understood that the common use is low in some cases, and it was assumed that the costs are dividing into two sections: constant and variable for every applications.

TOC literature is also criticized by accounting theories to show its priority to the accounting model. In general, TOC suggests that the selection of the combination should be limited based on constraint sources to acceptance capacity of each unit of constraint source instead of profitability.

This is important that there is no incorrect theories about TOC and its ability to provide the prior tools to production design and providing the rule of marginal capacity as the profit limiting to Gagne & Atwater writings. The problem was described in the field of production management and by Umble (1998) & Umble (2001) repeatedly. Furthermore, when the results of accounting literature are stated, the aim is targeted toward showing obsolescence of TOC method, and also it is attempted to say that there is a least deviation in marginal capacity based on accounting method, and TOC method, in fact, is placed in a lower rank and causes errors.

**Role of improvement**

In some assessments that have been conducted on toc, it was emphasized that new approaches that toc offers in the shadow of linear programming (lp), for example,

luebbe & fich (1992, p.1477) say << Of course, the analysis produced by lp on the costs to complete and analysis of the level of efficiency by toc / restrictions is not based on \$>> the term is misleading because, in fact, linear programming is limited based on the principles that aims to increase the contribution of each unit of resources. Each repeated issue uses the simplex method of the linear programming to solve problems related to optimization have been used based on these design principles. Unlike the linear programming, toc is repeated several times because there are several reasons to restrict linear programming, toc assumes that to select the relevant limits is supposed to work when creating the process can be identified in different areas.

Totally, marginal cost (shadow) to toc is a measurement method, because the marginal capacity is measured due to limited resources while the average capacity is measured only in toc, medium capacity will be marginal for simple problems while the complex issues are different.

#### **Current position of management bottleneck**

Although linear programming has a relative priority to the toc but had limited success votes. Clark (1992) reported 5% use among Irish companies. There is no evidence that shows the increase in the use of this method despite the increased availability of computer hardware and software and database, which a reduction in the cost of implementation will reduce the costs.

In some accounting books, management of linear programming is eliminated and instead the toc is used. Kaplan and Atkinson in the second edition of "Advanced management accounting" (1989) attributed an entire chapter to linear programming to be designed. Second edition (1998) did not have any references for linear programming, but the contents of the toc are proposed.

It should be considered that lp has actually the problems that are due to the following assumptions:

- Linear objective function and constraints
- Fixed selling price and measurable variable cost factors are achieved to the objectives function.
- To identify the size of the limitations of discrete Braush & Taylor (1997) stated that none of the 12 areas studied and only 3 companies out of 51 companies have determined available capacity, the use of cost and lack of use or non-use of capacity in support of corporate and non-regional activities.

This article discussed the reasons that explain this trend for lp to toc. It seems that this article was part of a larger research associated with larger communications and helps the authors of academic books. Lp principles of military activities of Cpickering (1992) cannot be in the words of the methods and institutions, and as Cpickering described, there is a dialectical resistance and compliance techniques between materials, and human society, and it cannot be assumed that the technical superiority is automatically adaptive.

Toc is considered as a critical accounting process. Increasing pressure stimulus in institutions is evident because of globalization and accelerated technological changes, erratic changes in management accounting and the study of concepts, techniques is done.

#### **Positive views about current toc optimization**

Toc is theoretically correct as an optimization method for capacity managing, but is not widely used. It can be said that toc is not defined holistically. Toc cannot set the price for the marginal outlet in this way represents a dual prices for limited capacity.

However, it is believed that management should be followed continuously through observation as Wip goods composition or services in respect of the customer following the bottlenecks. As the target is toc, the search can contribute to profitability. Brausch & Taylor research institutions in bottlenecks have shown different reactions as follows: Run too long, existence overtime shifts and changes and the use of temporary workers or employees.

It can be multi-skilled personnel who are used in short-term conditions at various places. This should be supported by policies to pay, and to draw staff satisfaction due to

additional skills, flexible working patterns. A good example in this case, is computer assembly activities at national level, and that here we examined keep pace with personnel of the production line were instead replaced every four weeks. In this case, it was determined that the small loss of productivity is compensated due to lack of knowledge of personnel in the early stages of any new work flexibility later by creating multiple skills.

Most long-term restrictions can be eliminated by short-term investments in capacity. Balanced production process may have a particular unused capacity. The study by Braush & Taylor has shown that in most organizations, the cost of unused or surplus capacity has not been calculated. They recommend that enterprises show lack of margin of unused capacity as a variable of "consumption" (waste).

#### **Operating profit**

Maximizing the profits, using marginal pricing:

In terms of profit margins caused by linear programming is used due to limited resources in the aviation industry and the management system. These views enable institutions to price based on occupancy capacity per flight and select the expected final capacity of their choice.

#### **Conclusion**

The question that is raised in this article is not applied only in conjunction with Toc critical problem in the field of accounting standards or criteria to other measurements or billing simple methods and /or the views of the opposition in the quantitative models designed for them but why accounting is an elastic theory in relation to culture. Since this material is interesting that there is evidence in this field, Goldratt conducted a study about the academic discussion of assumptions and accounting applications. (Jones & dugdale 1998) They noted that Golder did not cite other authors but to show often resorted the contents of Plato and Isaac Newton.

In addition, Jones and Dagdal agree that toc has the capabilities required for the hypothesis transferred. They claimed that "this approach is the ability to direct change the methodology and the goals are obstacles in the way that they deal "this last point is the best because Toc deals only with simple goals and assumptions of choice.

However, toc has the potential to act as a means institutions to comply with the purposes of making marginal costing techniques used in front of them.

The use of very simple principles and its application is much better than its absence, toc also is not important for managers to have a strategic approach but it is important to product profitability, but profitability is important and the resources used, in this regard toc acts for activity-based costing as an opponent in the public services.

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