RELEVANT COSTS: IMPORTANT ELEMENT IN MANAGEMENT DECISION MAKING

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Abstract: *costs are one of the management accounting targets, but not all the information provided by accounting contributes effectively to management decisions. Relevant and irrelevant costs are the core subject of this research. Decisions must be taken only on the basis of relevant costs and revenues, which must differ from one alternative to another. Irrelevant information creates the image of excessive information in decision making. In traditional model, the distinction made between fixed cost and variable costs in accounting helps accountants in determining the relevant costs. Fixed costs are relevant to long-term decisions, while variable costs are relevant in short-term decisions. While activity-based cost management focuses on costs: at unit level, at group level (batch), at product level etc. The activity resource usage model has the role of segmenting various cost-per-activity behaviors and assessing their relevance.*
Keywords: *management decision, relevant cost, activity-based cost system.*

РЕЛЕВАНТНЫЕ ЗАТРАТЫ: ВАЖНЫЙ ЭЛЕМЕНТ ПРИ ПРИНЯТИИ УПРАВЛЕНЧЕСКИХ РЕШЕНИЙ

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Аннотация: *затраты являются одной из целей управленческого учета, но не вся информация, предоставляемая путем учета, вносит эффективный вклад в управленческие решения. Релевантные и нерелевантные затраты являются основным предметом этого исследования. Решения должны приниматься только на основе соответствующих расходов и доходов, которые должны отличаться от одной альтернативы к другой. Неприемлемая информация создает образ чрезмерной информации при принятии решений. В традиционной модели различие между фиксированной стоимостью и переменными расходами в бухгалтерском учете помогает бухгалтерам в определении соответствующих затрат. Фиксированные затраты относятся к долгосрочным решениям, в то время как переменные затраты имеют отношение к краткосрочным решениям. В то время как управление затратами на основе ресурсов ориентировано на уровне единицы, на уровне группы (партии), на уровне продукта и т.д. Модель использования ресурса играет важную роль для сегментирования различных затрат и оценки их релевантности в случае, когда применяется Activity-Based Costing.*
Ключевые слова: *управленческое решение, релевантные затраты, нерелевантные затраты, Activity-Based Costing.*

Introduction

Costs are one of the management accounting targets, but the way they are used in the decision-making process becomes a function of executive management. The role of this research is directed to present the relationship between accounting and management and also to demonstrate that not all information presented by accounting contributes to effective management decisions.

Relevant and irrelevant costs are the core subject of this research. However, the use of accounting information in management decisions has had a traditional cost modeling approch and an activity-based costing one.

The judgments of management decisions

Decisions that a manager has to take vary from setting goals and strategies for the entire activity to decisions specific to daily work. Some of the decisions can only have short-term implications, while others may have long-term implications. Broadly speaking, management decisions can be classified into three categories: *strategic, tactical and operational decisions*. **Strategic decisions** are characterized by major implications in the entity's long-term activity, and directly contribute to the entity's objectives and substantial capital investment. **Tactical decisions** have the role of implementing strategic decisions and are taken by mid-level managers for a period of 1-3 years. The tactical decision-making process is one of the most discussed topics in this field of research. Thus, Hansen, Mowen, Guan, (2009) and Horngren, Datar, Rajan (2012) used the decision model with five very important consecutive steps for tactical decisions (Figure 1):

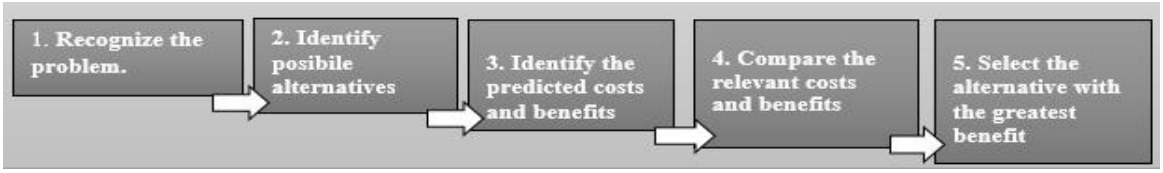

Fig. 1. The steps to take in tactical decision making

Source: elabored author on [2], [3].

The content of each step (Figure 1), within this decision model, has a subjective character due to diversity in approach. Horngren, Datar, Rajan (2012) support the idea that uncertainties must also be introduced in the first stage. For example, let us admit that the main problem of an entity is to reorganize production operations to reduce labour remuneration costs. The uncertainties relate to the psychological state of employees who may be affected by the reorganization of the production process. In choosing alternatives, it is recommended that the financial benefits be significant and the effects on the employees' psyche should be relatively small and temporary. Referring to Stage 5 Horngren, Datar, Rajan (2012) argue that it should also take account of the process of implementing the decision. Therefore, the number of steps corresponds to both models, but the final stage, in Hansen, Mowen, Guan, 2009, which refers to the selection of the decision, is not complete because it does not follow implementation. In addition, Horngren, Datar, Rajan (2012) decision model in Stage 5 aims to prepare employees for eventual change and performance-based control.

The five steps define a simple decision model: determining costs and revenue, identifying relevant / irrelevant costs and analyzing them. However, qualitative factors of a non-financial nature play an essential role in making managerial decisions. For example, the decision to purchase a basic or secondary product (service) can seriously affect staff morale, reduce control over delivery times or product / service quality. Managers should always consider the potential quantitative and qualitative effects of their decisions – ignoring qualitative factors can generate serious mistakes (Horngren, Harrison, Oliver, 2012, p. 929).

Typology of costs versus traditional model

The decision-making process involves choosing the solution from two or more alternatives, aiming at maximizing the value of the shares in the future. *The relevant costs and revenues* (Figure 2) are the basis of a decision and are considered relevant only when they change in the direct result of the decision taken. These costs and revenues are characterized by the following: cash flows, future costs and revenues that must always be subject to incremental analysis. When choosing an alternative, the decision must be taken only on the basis of the relevant costs and revenues, which must differ from one alternative to another. The irrelevant information creates the image of the excess information in making a decision. The relevant costs (revenues) are future costs (revenues) that differ according to alternatives. All decisions refer to the future; consequently, only future costs may be relevant to decisions. However, to be relevant, a cost (revenue) must not only be a future cost (income) but must differ from one alternative to another. If a future cost is the same for more than one alternative, it has no effect on the decision: such a cost becomes irrelevant (Hansen, Mowen, Guan, 2009, p. 636).

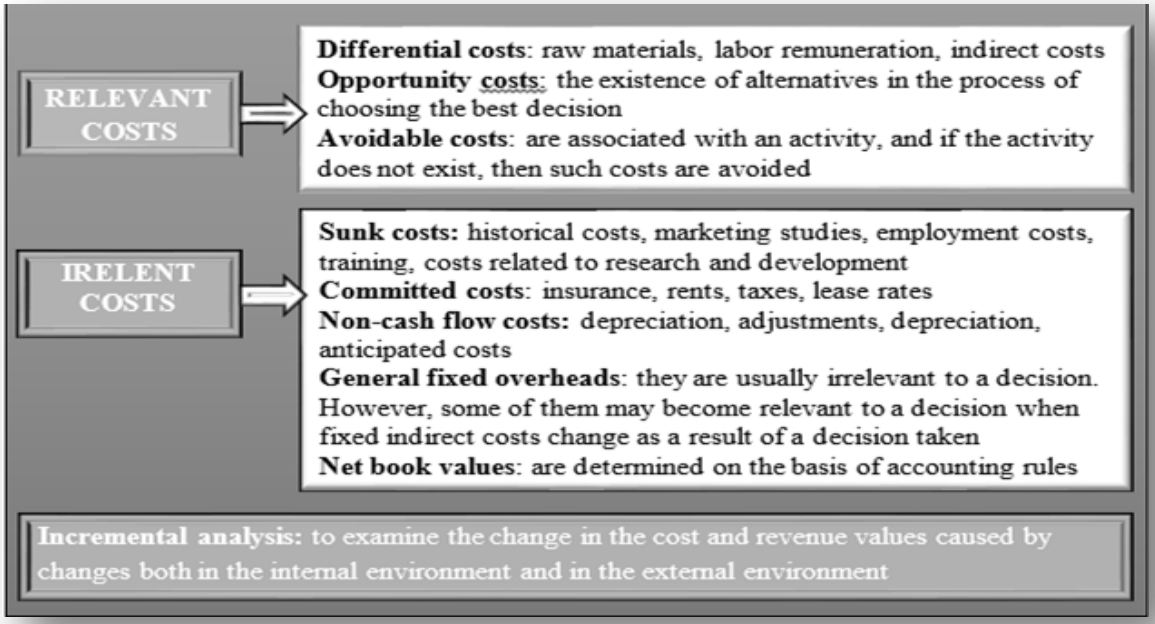

Fig. 2. Cost Typology in Decision Making

Source: elabored author on [1], [2], [3], [4], [5].

The costs mentioned in the traditional accounting reports are of an absorbent nature, i.e. they include fixed and variable costs, a factor that can mislead managers' decisions. The distinction made between fixed cost accounting and variable costs helps accountants determine the relevant costs needed for decision-making (Weetman, 2010). Fixed costs are relevant to long-term decisions (Horngren, Harrison, Oliver, 2012), while variable costs are relevant in short-term decisions. Since fixed costs and variable costs behave differently, it is recommended ***to address the margin of contribution*** in order to separate fixed costs from variable costs. Fixed costs are not relevant to short-term decisions because they are done regardless of the decision taken.

The costs, which do not highlight the elements necessary for a decision, are considered irrelevant. *Sunk costs* (Figure 2) need not be taken into account when deciding to continue investing in an ongoing project due to the fact that they can no longer be recovered (ACCA, F2, 2008). From an accounting point of view, some of these costs can be capitalized, which allows their depreciation on future expenses. The *assumed costs* refer to subsequent periods; as a rule, are long-term, and the notion of "assumed" means that they are binding as a result of contracts, etc. Due to their nature, they can not be significantly reduced without affecting the ability of the entity to function normally. *Cash flow costs* (ACCA, F2, 2008) are costs reported in the current period profit and loss account but do not generate any cash payments in the cash flow statement. This category also includes revenue and costs that are unrealized in the current period but is included as a result of the accrual accounting rules.

The key features of the relevant or irrelevant information are as follows (Horngren, Datar, Rajan, 2012, p. 394):

- *historical costs* are important in forecasting but irrelevant in decision making;
- *the various alternatives* are compared by examining the differences between the total forecasted revenue and the total estimated costs;
- *not all expected revenues* and *costs are relevant*. Future revenues and costs, which do not differ between alternatives, are irrelevant and can therefore be removed from the analysis. The key question is always: What difference can cause a change of situation?
- *the significance of qualitative factors* and *non-financial quantitative factors* is attributed to the situation.

In this case, *depreciation* is an allocation of historic costs that have been incurred in the past as an *irrecoverable cost* and *cost-free cash flow*. Regardless of the chosen alternative, the acquisition cost of that asset has already been incurred and remains the same in both alternatives. Although this cost relates to future periods, because it can not be avoided and is the same for the various alternatives, it is considered irrelevant. Thus, the historical cost of the asset and the amortization allocated must not be a relevant factor in making the decision to manufacture or buy.

Managerial decisions in the case of activity-based cost system

The basis for relevant decisions is based on the understanding of cost behavior. Cost management, based on the system of functions, focuses on work *units*, easily distinguishing fixed costs and variable costs, while cost-based activity-based management focuses on costs: *at unit level*, *at the level of group of units (batch)*, *product level*, etc. The first three levels have a variable character by observing the cost drivers of each activity. ***The activity resource usage model*** has the role of segmenting the different cost-per-activity behaviors and assessing their relevance. This model divides resources into two categories: *flexible resources* and *committed resources*.

Flexible resources are acquired and used as needed. The resources consumed in an activity are the *cost of doing the respective activity*. The amount paid to the provider for the same activity is the *cost of that activity*. If the demand for an activity changes according to alternatives, then the consumption of resources will change and the cost of the activity becomes relevant to the decision. For example, domestically produced electricity uses fuel for the generator, and therefore fuel becomes a flexible resource. Two alternative options are assumed: a) to accept the special order only once; b) to reject the special order. Acceptance of the order generates an increase in kilowatt-hour demand (the cost inductor of that activity), and the cost of the energy supplied varies depending on the fuel consumption alternatives per kilowatt-hour (assuming that this fuel is the only flexible resource). Therefore, the cost of the energy supplied becomes relevant to the decision (Hansen, Mowen, Guan, 2009, p. 637).

Assumed resources acquired before use by implicit contracting are usually acquired in lumpy amounts. Taking into account the full time employees of an entity and the employees with the hour, the entity will maintain the level of employment, even if there may be temporary regressions in the income of that activity. This means that an activity does not use all the available capacity. Thus, an increase in demand for this alternative activity did not mean that this cost of activity would increase (because the level of demand growth is absorbed by the unused capacity of the activity). For example, it is assumed that a company has five production engineers who provide a capacity of 10,000 hours per year (2,000 hours by each engineer), and the cost of that activity is USD 250,000 (USD 25 per hour). It is admitted that this year, the company expects to use only 9,000 engineering hours for its normal business. This means that the activity in question has 1000 hours of unused capacity. In deciding to reject or accept a special order that requires 500 hours of engineering, the cost of engineering is irrelevant, as resource consumption is the same for each alternative.

Table 1. Resource Demand and Supply

Category of resourses	**Relationship**	**Relevancy**
Flexibile resources	Supply = Demand	
	Demand changes	Relevant
	Demand constant	Not relevant
Committed resources	Supply – Demand = Unused capacity	
	a. Demand increase < Unused capacity	Not relevant
	b. Demand increase > Unused capacity	Relevant
	c. Demand decrease (permanent) - Activity capacity reduced - Activity capacity unchanged	 Relevant Not relevant

Source: [2].

The pattern of resource use by activities and the concept of relevance are valuable tools in tactical decisions. Table 1 generalizes ideas on the role of the use of resources by activity by ensuring the relevance of a decision. If a change in demand causes a change in resource supply then the cost of activity will change and become relevant for some decisions. A change in resource supply means a change in resource consumption and, consequently, a change in the cost of the work. A change in resource consumption can take place in one of two ways: 1) demand for resources exceeds the level provided (increases resource consumption) and 2) demand for resources decreases permanently as a result of decreased activity capacity (resource consumption decreases) (Hansen, Mowen, Guan, 2009, p. 637).

The importance of the model is amplified as the level of efficiency in solving problems in relation to the decision to produce or to buy, accepting or rejecting a special order at a lower price than the market, keeping or reducing the activity of a Product lines (byproducts), adding extra products to a process or selling at the split-off point etc.

Conclusions

Decision-making on the basis of rational costs is based on the latest stages of management science research and is an important factor in technical-scientific progress. This aspect of management accounting attempts to direct the research area towards new trends, from productive ideas to decisions based on rational judgment and reasoning. If the entity uses the traditional costing system, then fixed and variable costs guide accountants in determining rational and irrational costs. Variable costs can become rational for short-term decisions, while fixed

costs refer to long-term decisions. Activity-based cost management is one of the most innovative cost models and operates with flexible and assumed costs. We point out that the relevance or irrelevance of these types of costs is determined by the demand for resources.

Regardless of the model of cost determination, accounting information has a decisive role in management decisions. But the financial-accounting department should be cautious about the kind of information that they have to provide to executive managers.

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