Optimizing Pricing Decisions in the Face of Evolving Business Dynamics: A Theoretical Exploration

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Requirements and Difficulties of Applying Advanced Managerial Accounting Techniques for Pricing Purposes in the Egyptian Manufacturing Enterprises (Case Study)

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Abstract:

This research explores the various pricing approaches employed by enterprises and the factors influencing their pricing decisions. The study investigates three main pricing approaches: cost-based pricing, competition-based pricing, and customer value-based pricing. Each approach is analyzed in terms of its advantages, disadvantages, and suitability for different market conditions. Additionally, the research discusses the conditions under which each pricing approach is most effective, considering factors such as market structure, competition intensity, and product differentiation. The findings suggest that while cost-based pricing remains widely used, market-based approaches that incorporate competition and customer value are becoming increasingly important for enterprises seeking to achieve competitive advantage. The research concludes that pricing decisions in highly competitive markets, where pricing too low or too high can have adverse effects on profitability, should be made through an understanding of market dynamics and are formed by a combination of cost, competition, and customer value considerations. It also recommends the adoption of advanced management accounting techniques to improve the accuracy and objectivity of cost data.

Keywords: Pricing decisions, Traditional cost-based pricing, Market-based pricing, Market Structure, Advanced Management Accounting Techniques.
ملخص البحث

هدفت الدراسة إلى تحليل طرق التسعير المختلفة المتصلة من قبل المؤسسات والمعامل التي تؤثر في قراراتها بشأن التسعير. وقد تناولت الدراسة ثلاثة طرق رئيسة للتسعار: التسعار على أساس التكلفة، والتسعار على أساس المنافسة، والتسعار على أساس القيمة للمعمل. تم تحليل كل طريقة من هذه الطرق من حيث مزاياها وعيوبها ومدى ملاءمتها لظروف السوق المختلفة. بالإضافة إلى ذلك، تتناول الدراسة الظروف والحالة التي تكون فيها كل طريقة للتسعار أكثر فعالية، مع الأخذ في الاعتبار عدة عوامل مثل هيكل السوق وشدة المنافسة، وتميز المنتج. وقد توصلت الدراسة إلى أن التسعار على أساس التكلفة لايزال يستخدم على نطاق واسع، وأن طرق التسعار على أساس السوق التي تدمج عوامل المنافسة والقيمة للعمل تعبر أكثر أهمية بالنسبة للمؤسسات التي ترغب في تحقيق ميزة تنافسية، وعلى يجب فهم ديناميات السوق وتجنب الاعتماد فقط على التسعير على أساس التكلفة، خاصة في الأسواق التنافسية حيث يمكن أن يكون للتسعار المنخفض أو المرتفع آثار سلبية على الربحية. وقد أكدت الدراسة أن قرارات التسعير يجب أن تكون مستندة إلى مزيج من الاعتبارات المتعلقة بالتكلفة، والمنافسة، والقيمة للمعمل. وتوصى الدراسة بضرورة اعتماد أساليب المحاسبة الإدارية المتقدمة لتحسين دقة وموضوعية بيانات التكلفة.

الكلمات الدالة (المفتاحية): قرارات التسعير، التسعير التقييدي على أساس التكلفة، التسعير على أساس السوق، هيكل السوق، أساليب المحاسبة الإدارية المتقدمة.
1- INTRODUCTION

The evolving dynamics of the current business environment, characterized by rapid technological advancements, globalization, and shifts in market structures, have necessitated a critical examination of the effectiveness of traditional pricing approaches. For enterprises grappling with the complexities of the current business landscape, understanding the strengths and limitations of traditional pricing strategies is crucial. This research aims to evaluate traditional pricing approaches and identify the gaps that may hinder optimal pricing decision-making in the face of evolving business dynamics.

1.1 Research Problem:

In the wake of technological advancements, changes in customer behavior, and intensified market competition, traditional pricing approaches may face inadequacies in meeting the demands of the current business environment. This research seeks to identify these inadequacies and gaps, providing a foundation for enterprises to adapt their pricing decisions to the realities of the contemporary market.

1.2 Research Objectives:

This research aims to achieve the following objectives:

1- To evaluate the effectiveness of the traditional pricing approach employed by different enterprises and to identify the gaps related to it that may hinder enterprises from effectively responding to the challenges posed by the current business environment.

2- To identify the new approaches of pricing and the required market conditions for their application, emphasizing a broad perspective applicable to diverse business contexts.

1.3 Justification:

This research is essential for enterprises seeking to optimize their pricing strategies in response to the evolving business environment. By evaluating the traditional pricing approach and identifying gaps, this study provides actionable insights that can guide decision-makers in aligning their strategies with contemporary market demands.
1.4 **Scope of the study:**

This theoretical study encompasses a broad scope, going beyond geographical boundaries and industry-specific constraints. By adopting a general perspective, it aims to provide insights applicable to a spectrum of enterprises, irrespective of their location or sector. The focus remains on uncovering basic rules that apply everywhere and understanding the overall dynamics influencing pricing decisions in the current business world.

1.5 **Significance of the Study:**

The pricing decision is one of the most important decisions made by management. This research holds substantial significance as it addresses current challenges faced by enterprises, providing actionable insights to enhance pricing decisions in response to the complexities of the current business environment. The research bridges the gap between the traditional pricing approach and the imperatives of the current business environment. By offering a theoretical foundation, it empowers enterprises to critically assess their current approaches, enhancing an environment of continuous improvement. The insights gained from this exploration are not only relevant for decision-makers within enterprises but also contribute to the broader academic understanding of pricing strategies and approaches, influencing future research and strategic considerations.

1.6 **Research Methodology:**

This theoretical research employs a comprehensive literature review, drawing from previous studies and research issued by scientific organizations, academic journals, and reputable databases, and integrating existing knowledge on traditional pricing approaches, emerging methodologies, and the evolving business environment. Conceptual and analytical frameworks are used to assess the effectiveness of the traditional pricing approach and identify gaps. This methodological approach ensures a precise examination of the subject matter, facilitating the generation of insights with conceptual strength regarding the suitability of the new pricing approaches to the current business environment.

1.7 **Research Structure:**
The research begins with an extensive review of the literature to establish a theoretical foundation. Subsequently, the evaluation of the traditional pricing approach and identification of gaps will be conducted, followed by an exploration of emerging and new pricing approaches and their requisite conditions. Finally, a comprehensive discussion and conclusion will be provided, with each section contributing to the overall goal of providing actionable insights for enterprises to deal with the complexities of pricing decision optimization.

2. Literature Review:

2.1 Pricing Decision:

Pricing stands as a key strategic component for management, it is essentially related to management accounting, and represents a significant business challenge. Many fields of expertise, including economics, accounting, business, law, psychology, and engineering, among others, invest considerable effort in examining and explaining this phenomenon. Enterprises always invest energy and time to get the right pricing decision, so it has been and still is a very relevant topic in business (Cornacchione, E. et al., 2023:3).

Many authors have identified the importance of pricing for every enterprise’s profitability, mainly because it is the only element of the marketing mix that generates revenues for a firm, while all other elements of the mix are associated with costs (i.e. Mochtar, K., 2000; Jobber, D. & Shipley, D., 2012; Khan, M., 2014; Bognar, Z. et al., 2017; Fatma, S., 2019). Studies have shown that small changes in price can substantially affect profitability, as a 2% increase in price increases operating profitability by 14% on average (Hinterhuber, A. & Bertini, M., 2011: 46). A similar result was indicated in a recent study, which stated that pricing optimization is one of six revenue levers that may have a 2% to 5% financial impact in an average time of 3 to 9 months (Chugani, S. et al., 2020). Therefore, price plays a crucial role in the current competitive environment and is an extremely important competitive weapon.

Despite the importance of pricing in achieving the enterprise’s different objectives, like long-term survival, revenue and profit maximization, sales maximization, and market share maximization, among others (summarized in the study of Avlonitis, G. and Indounas, K., 2005: 48), which are led by different market conditions, enterprises still
don’t use the appropriate approaches for pricing in order to achieve different objectives. According to a recent report, a survey of more than 1700 B2B enterprises showed that 85% of management teams believe their pricing decisions need improvement, and only 15% have effective tools to set and monitor prices (MacArthur, H. et al., 2020:64).

Being able to correctly establish price is an important variable, especially in the new manufacturing environment where managers are faced with global competition and increased productivity, and enterprises have become customer-driven, focusing on delivering quality products at competitive prices.

Managers responsible for setting prices within their enterprises might have to gain a lot of perception about pricing by examining thoroughly the conditions surrounding both their internal environment and the market in which they operate before choosing the preferred approach for pricing. This reflects the complexity and multidimensionality of product or service pricing, as managers must comprehend all factors that make some pricing decisions succeed and others fail. Therefore, effective pricing is affected by a range of enterprise-oriented (internal) and environmentally-oriented (external) factors that are beyond the enterprise’s control.

Monroe, K. (2003:11) has indicated an approach of pricing that includes five essential factors that should be considered when setting prices (as shown in figure 1).

Monroe, K. stated that demand considerations establish a ceiling, or maximum price, that may be charged. The determination of this maximum price depends on the customers’ perceptions of value in the seller’s product or service offering. On the other hand, costs set a floor or minimum possible price. For existing products, the relevant costs are the direct and assignable indirect costs associated with production, marketing, and distribution. For a new product, the relevant costs are the future direct and assignable costs over the product’s life cycle. The difference between what buyers are willing and able to pay (perceived value) and the minimum cost-based price represents initial pricing discretion.

However, regulatory restrictions, enterprise profit and market objectives, and competitive factors all limit this range of pricing discretion. Primarily, competitive factors reduce the price ceiling, whereas enterprise objectives and regulations raise the minimum
possible price. Enterprise objectives translate into financial requirements that necessitate higher prices to cover fixed and variable costs and meet profit goals. Therefore, simply covering direct variable costs normally results in an insufficient price level. Government regulation (e.g., pollution controls and safety standards) often forces the costs of production up. The implementation of regulations for certain marketing activities, such as ensuring safe packaging and legal regulation against predatory pricing, together with the need to protect a product from possible liability lawsuits, all raise the pricing floor.

Typically, these factors limit the extent of pricing discretion. The extent of pricing discretion may vary depending on the nature of the product as well as the specific features of demand and competition. In certain cases, there may be significant flexibility in setting prices, while in others, there may be no room for discretion at all.

Demand factors

<table>
<thead>
<tr>
<th>(Price ceiling)</th>
<th>(Value to buyers)</th>
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<tr>
<td>Competitive factors</td>
<td>Initial pricing discretion</td>
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<tr>
<td>Final pricing discretion</td>
<td></td>
</tr>
<tr>
<td>Direct variable costs</td>
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Figure 1: Factors affecting pricing decisions

Source: Monroe, K., 2003:12

Based on the above, it turns out that costs, competition, and customers determine a product’s pricing environment. Undoubtedly, cost is an important part of the decision-making process in setting prices, but it is neither the only nor a sufficient factor. One important role of cost is its role as a starting point, revealing to management the lower limits of the price range.

2.2 Pricing Approaches

Pricing, or price setting, is the process of setting the product’s price. In other words, it is the process of setting values at which products and services are to be sold. In
the long run, the price of a product must be enough to cover all the enterprise’s costs and generate a satisfactory profit for the enterprise. In the short run, a product’s price at least should cover incremental costs (variable costs) in providing the product to customers (Sunarni, C. and Ambarriani, A., 2019:85).

Price setting, or more formally, price orientation, concerns the methods or approaches that enterprises use to determine final selling prices (Hinterhuber, A. and Liozu, S., 2012:70).

Enterprises differ wildly in their approach of pricing. Academic research concludes that pricing approaches across industries, countries, and enterprises usually fall into one of two categories: cost-based pricing (the traditional approach) and market-based pricing, which includes both competition-based pricing and customer value-based pricing approaches (Hinterhuber, A. & Liozu, S., 2012:70). Next, these three approaches are discussed in detail in terms of the price determinants, advantages, and disadvantages.

2.2.1 Cost-Based Pricing and the Gaps related to it:

Previous empirical studies concluded that the price-setting approach most frequently used by enterprises is the cost-based pricing approach (Shim, E. and Sudit, E., 1995; Noble, P. and Gruca, T., 1999; Mochtar, K., 2000; Balakrishnan, R. and Sivaramarkrishnan, K., 2002; Pierce, B., 2002; Avlonitis, G. and Indounas, K., 2005; Fabiani et al., 2005; Eid Mahmoud, 2006; Avlonitis, G. and Indounas, K., 2006, 2007; Nedal Mohamed, 2007; Talal Sulaiman, 2011; Coller, G. and Collini, P., 2015; Fares Refaat, 2015; Correa, A. et al., 2016; Sunarni, C. and Ambarriani, A., 2019).

Accounting data heavily influences pricing decisions in the cost-based approach, which aims to achieve a predetermined markup on costs or a specific return on investment. Common examples of cost-based pricing approaches include cost-plus pricing, break-even pricing, and target return pricing (Hinterhuber, A. & Liozu, S., 2012:70).

Cost-plus pricing, which is equivalent to markup pricing, is unquestionably the most common method of cost-based approaches. In its most simple form, the cost of production is estimated, a margin for profit is added on, and a price is calculated. Break-even analysis is a more complex method for analyzing costs linked to sales volume. This
type of analysis is often used to estimate the likely relationships between costs, profit, and volume over time. With this analysis, enterprises try to compute the volume of products that must be sold to cover the fixed costs. The analysis is often graphed to show the point at which all fixed costs are covered (known as the breakeven point), after which a contribution is earned. The third method among the cost-based approaches is target return or target profit pricing. Enterprises look at an area or product range and decide what they need to make, for example, a 20 percent return on the investment, and set the price accordingly. This technique is sometimes called ROI, or return on investment pricing (Korda, A. and Belogavec, S., 2004:1850).

Therefore, implementing cost-based pricing relies heavily on the accuracy of cost calculation and cost structure, as the markup rate is added to the per unit cost to arrive at a price. A manager is able to choose between total, full, and variable costing methods to reach a price.

Accordingly, product price incorporates two elements: product cost and margin. Product costs can be calculated through total costing, full (absorption) costing, or variable (direct) costing. Depending on the adopted costing method, the composition of the product cost and the desired margin vary, as shown in table 1.

Table 1: Cost and margin composition

<table>
<thead>
<tr>
<th>Costing method</th>
<th>Product cost composition</th>
<th>Margin composition</th>
</tr>
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<tbody>
<tr>
<td>Total costing</td>
<td>Total costs + total expenses</td>
<td>Desired profit</td>
</tr>
<tr>
<td>Absorption costing</td>
<td>Total costs</td>
<td>Total expenses + desired profit</td>
</tr>
<tr>
<td>Variable costing</td>
<td>Variable costs and expenses</td>
<td>Fixed costs + fixed expenses + profit</td>
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Source: Guerreiro, R. et al., 2012:5

Govender, D. (2000) examined the factors that could possibly influence the choice between full-cost and variable-cost pricing. The study provides evidence that supports the size of the company, product type, stage in the product life cycle, materiality of fixed overhead costs, and the objectives of the enterprise as significant variables influencing the choice of the cost base for product pricing. The previous study found a number of
important conclusions related to the choice of the cost base for product pricing decisions. Among these conclusions are the following:

- Larger enterprises are more likely to choose full-costs, whereas smaller enterprises are more likely to choose variable costs. As in a multi-product enterprise, the effort required to determine the estimated total cost and estimated total revenue for every product is both time consuming and costly. Only enterprises that have the necessary resources will be in a position to carry out the complete cost analysis necessary for various pricing options. Therefore, larger enterprises will have the resources that are necessary to carry out a total cost analysis for product pricing.

- Enterprises that produce customized products are more likely to choose a full-cost base, whereas enterprises that produce standardized products are more likely to use a variable-cost base.

For customized products, a price that covers full costs plus a markup will be acceptable to both manufacturers and their customers. With standardized products, the emphasis is on mass production and the need to enter new markets as well as expand existing market share. Under these circumstances, enterprises are faced with increased competition, which can drive prices down. Variable costs will serve as a guide for these enterprises in determining the minimum price to charge. Thus, variable costs may provide a starting point for product pricing when enterprises face competition.

- Enterprises in which the products are in the introductory and maturity stages of the product life cycle are more likely to use full-cost rather than variable-cost, whereas enterprises in which the products are in the growth and decline stages of the product life cycle are more likely to choose variable-cost instead of full-cost for product-pricing purposes. Life cycle costing highlights the importance of setting prices that must recover costs in each stage of the product life cycle.

- For those enterprises for which fixed overhead costs are significant when compared to total overhead costs, such costs are important and are expected to be included in the cost of the product. Therefore, such enterprises are more likely to use the full-cost base. While where fixed overhead costs are not significant when compared to total overhead costs, enterprises use a variable-cost base.
Enterprises that rank the objectives of target return on investments and target market share as the highest objectives favor the use of full-cost pricing as it ensures the recovery of all costs. Whereas, enterprises that rank managerial objectives of maximizing sales, market share, and liquidity as the highest priorities, choose a variable-cost base.

Sometimes capacity utilization may also influence the choice between full-cost and variable-cost pricing. Naturally, an enterprise attempts to increase capacity utilization. Thus, in the short run, an enterprise with a price-setting role can accept unplanned orders that come from irregular business operations of either new or existing customers. In this regard, the pricing itself may be a significant concern, and a price calculated based on the additional expenses for an order that helps maximize capacity utilization could be an attractive offer and enough incentive to accept an order. In general, the additional expenses can typically be considered the variable costs of the product (Veres, T., 2011:292).

The study by Govender, D. (2000) also found that more enterprises (74.5%) use full-cost pricing than those enterprises (25.5%) using variable-cost pricing. Other studies found the same result as well, where full-cost pricing dominated pricing practices (i.e. Govindarajan, V. and Anthony, R., 1983; Mills, R., 1988; Shim, E. and Sudit, E., 1995; Noreen, E. and Burgstahler, D., 1997; Arrunada, B., 2001; Lucas, M., 2003; Al-Omiri, M. and Drury, C., 2007; Thépot, J. and Netzer, J., 2008; Nubbemeyer, E., 2010; Guerreiro, R. et al., 2012; Ray, K. and Gramlich, J., 2016).

Despite the defect associated with full-cost pricing, as the allocation of fixed costs to products based on the direct costs caused by them has been much criticized for giving rise to serious distortion, there are a number of reasonable reasons for the continuing use of full-cost pricing. First, the emergence of advanced managerial accounting techniques like activity-based costing (ABC) and attribute-based costing (ABC II) is likely to rationalize the allocation of fixed costs and change them to variable or semi-variable costs in relation to the final cost object. These systems enhance ways of tracing fixed costs to a specific product and lead to a better allocation of these costs. They also provide more accurate product cost estimates that serve as the
basis for determining the full-cost price. Second, full-cost pricing provides motivation to control fixed costs. The use of fully allocated fixed costs in determining price could provide an alternative risk-sharing arrangement between profit center managers and top managers. Finally, the difficulty in estimating marginal cost and marginal revenue for various products may prevent enterprises from using the variable (marginal) cost approach. In a multiproduct environment, estimating marginal cost and marginal revenue may not be feasible or economical (Shim, E. and Sudit, E., 1995: 39).

Based on the foregoing, it becomes evident that there is a widespread use of cost-based pricing policies, with the full-cost approach being more prevalent than the variable-cost approach. This predominance of cost-based pricing may be because it is easy to implement and manage since enterprises have easy access to financial accounting information and it requires no other information beyond the product cost. Because of its importance and simplicity, some enterprises use it in the early stages of setting pricing, just as an indication of where to start.

Claret, J. and Phadke, P. (1995:21) identified other advantages of cost-based pricing, which are:

a- Price stability is encouraged.
b- It gives a reasonable price, which can then be amended to take account of other factors.
c- It is useful for enterprises that have many products, for all of which it would be difficult to analyze price-volume relationships.

Despite the simplicity and widespread use of the cost-based pricing approach, there are certain disadvantages related to it (Nessim, H. and Dodge, H., 1995 as cited in Korda, A. and Belogavec, S., 2004:1850):

a- There is no certainty about the costs of enterprises, as different techniques can give astoundingly different answers.
b- The effect of demand is not considered; if demand falls dramatically below plan, costs will certainly change, and the return will be nothing like expected.
c- Because consumer needs are not factored in, enterprises may be offering the product at an entirely wrong price (too high or too low).
In addition, cost-based pricing encourages inefficiencies as there is little pressure to reduce costs, and it is not fair for customers because if an enterprise produces its products inefficiently, the customer has to pay the un-efficiency impact on costs (Sunarni, C. and Ambarriani, A., 2019:88).

The main weakness of cost-based pricing is that it disregards market conditions, as it ignores aspects related to consumer and demand (willingness to pay, price elasticity), and competition (competitive price levels) (Hinterhuber, A. and Liozu, S., 2012:70).

Since pricing decisions are influenced by both enterprise-oriented and environmentally-oriented features, cost, competition, and customer-based characteristics are the most important and should be taken into account when setting prices. Therefore, considering these conditions is the only effective way to set prices that will be in accordance with product characteristics, the overall enterprise goals and strategies, and adaptive to the market’s unique features. Consequently, there is a need for more advanced pricing approaches, which will be discussed next.

### 2.2.2 Need for Advanced Pricing Approaches

In order to meet the global challenges in today’s highly competitive environment, enterprises should not restrict their attention to the cost structure of the enterprise. They should concentrate more and more on achieving customer satisfaction and monitoring the enterprise’s cost performance relative to other enterprises and, in particular, competitors, in order to achieve business success.

There are two benefits that can be derived from such extra-organizational cost analysis. The first benefit is a steady stream of ideas that can be used to make an enterprise more efficient and its products more competitive. The second benefit is a comparison of an enterprise’s own progress in becoming efficient with the progress of other enterprises. This can be performed through benchmarking against best practices and competitive cost analysis (Cooper, R. and Slagmulder, R., 2004:44).

This focus on the analysis of external factors gave rise to what is called market-based pricing, which focuses on demand (customers) and competition. This approach assumes that a product’s price should reflect its perceived value and image.
Accordingly, market-based pricing focuses on the requirement for market information about customer needs over the long run and the need for enterprise-wide integration of information and activities to meet customer needs competitively. Profitability is the consequence of adopting a market orientation.

A market-based approach includes competition-based pricing and customer value-based pricing, as follows:

(A) **Competition-based pricing:**

Enterprises exhibiting a competitive managerial pricing orientation carefully track conditions in the market. They monitor competitors’ prices and market shares and look for competitor signals.

The competition-based approach relies on data on competitive price levels or on the observed or predicted behaviors of current or potential competitors as a primary source to establish suitable price levels.

Enterprises have three main options under this approach: to price above, below, or similar to their competitors, depending on the extent to which their product is differentiated and the intensity of competition in the market (it will be discussed in detail later) (Avlonitis, G. and Indounas, K., 2006:204).

Enterprises following this approach treat price as a competitive weapon. They set prices reactively to match or beat competitors’ prices, to defend market share, protect customers, or win bids. Market share is considered essential to profitability. Marketing and sales are charged with monitoring the competitive climate and will have greater functional competence relative to other departments. Pricing decision-making is more formal and centralized, with some interdepartmental connectedness (Smith, G., 1995:36).

Consequently, competition-based pricing involves intensive information gathering from various sources using multifunctional teams. This analysis of the competitive situation is done from perspectives of price, cost, industry capacity, and competitor strategies, and this effort results in the establishment of a total enterprise-wide structural cost reduction target and individual product-by-product targets.
The analysis required for applying competition-based pricing begins with gathering and screening published information for analyzing competitors’ products from design, quality, processing, and material sourcing perspectives and analyzing labor productivity and asset management. Based on the data gathered, cost analysis and estimation can proceed to fill the informational gaps in the gathered data. Often, estimates are based on logical assumptions and estimating techniques using both deductive and inductive reasoning processes. This task of analysis and estimation becomes more difficult if the competitor operates in other, unrelated businesses, has factories located in other countries, or produces different volumes and mix of products (Jones, L., 1988).

It is clearly seen that competition-based pricing and competitor cost analysis must go beyond simply providing estimates of the competitors’ product costs. First, in addition to identifying pure cost differences, the analysis must highlight any value (dis)advantages related to product quality, customer service, or other capabilities. Second, the analysis should also include gaining insights into the competitors’ strategies and future plans and quantifying the impact of any current or future competitor cost-reduction programs. The competitive analysis should include any value differences between the enterprise and its competitors. Even when the enterprise appears to be at a relative cost advantage in relation to its competitors, it may still find itself at a comparative disadvantage from an overall cost perspective. For example, when the competitor benefits from a quality advantage, the enterprise can overcome only by increasing its costs significantly. The cost comparisons also should be enhanced with an assessment of the effect on price and cost levels of the competitors’ future strategies, new trends in the business environment, and potential actions of new players in the industry (Cooper, R. and Slagmulder, R., 2004:45).

Competition-based pricing is simple to track and administer, provided that reasonably accurate information about competitors’ prices is available on a timely basis (Smith, G., 1995:37).

One key advantage of this approach is that it considers the competitive situation (Hinterhuber, A. and Liozu, S., 2012:71). This is in addition to the existence of a
steady stream of ideas on how to improve products and processes while reducing costs. Such ideas can form part of an enterprise’s overall Kaizen (continuous improvement) costing program. Another benefit is the development of an action plan to ensure that the enterprise’s strategic position with respect to costs and other product attributes is strengthened (Cooper, R. and Slagmulder, R., 2004:46).

Despite these benefits, there are some defects related to applying competition-based pricing, which are (Shipley, D. and Jobber, D., 2001:311): -
- It ignores opportunities for using price initiatives for the enterprise’s gain.
- It ignores the enterprise’s own costs and cost differentials relative to rivals. In the worst case, following a rival could result in pricing below cost.
- Enterprises cannot be sure of what rivals’ prices are now, only what they were earlier in the day.
- It cannot account for rivals’ discounts because they are often negotiated secretly.
- It may ignore customer demand.
- It may ignore objectives other than those concerned with competitiveness.
- Price equality does not guarantee equal competitiveness since it is also influenced by non-price benefits.

In addition to the previous defects, a strong competitive focus on setting prices can trigger the risk of a dangerous price war (Hinterhuber, A. and Liozu, S., 2012:71). This occurs whenever one of the businesses drops its pricing in an effort to attract customers away from its rivals; as a result, other enterprises respond back by charging the competitive zero-profit price.

In short, a competition-based approach includes a regularly updated forecast of competitors’ information, and this information is used in decision-making and sensitization to one’s own weaknesses, benchmarking, and available opportunities for competitiveness. Despite its drawbacks, it provides insights into the current and future cost position of an enterprise with regard to best practices and competitors. It represents the starting point for developing an overall enterprise-wide cost reduction objective that is specified both period by period and product by product. This competition-based pricing and analysis and the resulting cost reduction objective can be achieved through
the application of target costing during the product design phase, which is one of the advanced managerial accounting techniques used for pricing.

**Target costing** is primarily a technique to strategically manage an enterprise's future profits. It achieves this objective by determining the life-cycle cost at which an enterprise must produce a proposed product with specified functionality and quality if the product is to be profitable at its anticipated selling price. Target costing makes cost an input to the product development process, not an outcome of it (Cooper, R. & Slagmulder, R., 1999:23).

The target costing technique works backward from traditional cost-plus methods and begins with a targeted sales price for a product. This price is set based on what the customer is willing to pay. Therefore, the design of a product is not a success unless it meets the functionality and price required by the market, the manufacturability requirements of the producer, and the financial requirements of the firm (Dorjahn, R.V., 1997:461).

Enterprises that have previously applied target costing have found that it has brought them several benefits, such as those addressed in (Leahy, T., 1998; Yook, K. et al., 2005:7; Dimi, O., 2015:92; Aladwan, M. et al., 2018:5):

1- Target costing is not a simple cost reduction technique. It is a comprehensive system designed to meet client needs while successfully controlling costs in order to generate the desired profit.

2- Target costing deals with the total cost. Therefore, it is crucial to understand the costs involved in each step of the product’s life cycle.

3- Target cost should be the minimum cost to produce a product and achieve the satisfaction of the client. It is not just based on a cost-plus or current cost estimate. Therefore, achieving greater cost efficiencies and increasing the enterprise’s competitiveness on the market.

4- Target costing reduces product’s cost, but at the same time keeps their quality and functionality over its lifetime.
5- All of the departments should cooperate with one another reach the desired cost; thus, the organizational structure should be constructed in a way that encourages the concept of a team work which improves interaction among employees from different business activities such as design, engineering, research and development, marketing, and accounting department. Collaboration with the external parties involved, such as clients and suppliers, is also important.

6- Target costing encourages commitment to continuous improvement, through exercising cost control after the product has been put into production.

As mentioned earlier, the two basic market factors affecting pricing are competitors and customers. The main focus of the target costing technique is competitors. While customers are the main focus of the customer value-based pricing approach and the corresponding attribute-based costing technique, which are discussed next.

(B) **Customer value-based pricing:**

Falciola, J. et al. (2020:2) employed a concept of competitiveness, whereby enterprises need to:

- Ensure the ability to satisfy customers’ requirements- in terms of quantity, quality, price, and timely delivery- within their targeted market segment at any given time.
- Have the capability to perform consistently and adapt to changes in their environment.
- Maintain a continuous connection to the most up-to-date market relevant information.

Thus, an enterprise has a competitive advantage if it is able to create more economic value than other competitors in its product market.

Therefore, in the global competitive market, the customer is the most important factor that will determine the existence of an enterprise. If the enterprise’s products were chosen by customers, the enterprise would be able to maintain its position in the market. However, if the customer did not select the enterprise’s product, the enterprise would get into trouble (Sunarni, C. and Ambarriani, A., 2019:93).

Among the three approaches of pricing, the customer value-based approach is the only one that takes customer perspective into account. This approach uses data on the
perceived customer value of the product as the primary determinant for establishing the final selling price.

Before proceeding with the analysis of the distinctive characteristics of this approach, it should be noted that in some writings, customer-based and value-based pricing are used as synonyms, while other writings consider them as two different approaches. According to (Feldman, D. and Wurst, J., 2001:31), under value-based pricing, the role of pricing is to proactively alter the buyer’s willingness to pay by understanding and leveraging the benefits sought by the buyer. This is in contrast with the customer-based pricing approach, which depends on reacting to the customer’s stated willingness to pay; it considers the level of demand as a foundation for determining prices.

Here, we use customer value-based pricing as a concept incorporating the need to manage customer perceptions rather than simply respond reactively to all customer complaints. That is, the purpose is to enhance profitability by capturing more value, rather than only focusing on increasing sales volume. Therefore, pricing should reflect the value of the product to customers rather than what customers are willing to pay.

Customer value-based pricing seeks to determine how to provide more customer value and enhance customer willingness to pay, even in the face of intense competition. The key factor in setting prices is the subjective and quantitative value that a purchase offering provides to current and potential customers. Therefore, the customer value-based pricing approach is driven by a deep understanding of customer needs, customer perceptions of value, price elasticity, and customers’ willingness to pay (Hinterhuber, A. and Liozu, S., 2012:71).

Value is a fundamental and crucial concept for scholars and practitioners in the fields of strategy, marketing, and pricing, as value creation and demand-side concerns are closely related to competitive advantage and profit. In customer value-based pricing, value is considered the key lever to increasing profitability and is defined as the customer’s maximum willingness to pay (it is equal to the maximum amount a customer is willing to pay to acquire a given product) or as the cost of the customer’s best competitive alternative plus the value of any enterprise-exclusive differentiating features (Liozu, S. et al., 2012:13).
A seller creates value for a buyer in only two ways: by enhancing the buyer’s benefits in proportion to their costs and by reducing the buyer’s costs in proportion to their benefits (Narver, J. and Slater, S., 1990:21).

Value is created for customers through a variety of product physical and intangible attributes that better satisfy their needs and/or reduce their acquisition costs. Therefore, the practice most used in keeping with customer value-based pricing is attribute-based costing, one of the advanced managerial accounting techniques. Attribute-based costing is integral to target costing, which seeks to reduce the life-cycle costs of products while ensuring all customer requirements are met.

According to Walker, M. (1991:34), attribute-based costing, which he named ABCII, is a development of activity-based costing (ABC) that incorporates product attributes to make ABC a more useful decision-making framework for practitioners who wish to customize the ABC approach and implement it in their particular industry. It provides a detailed cost-benefit analysis of customer needs aimed at improving effectiveness. The former technique focuses on product variables and customer benefits other than price and cost. It is built on an economic viewpoint that sees economic goods as being desired not for themselves but rather for the underlying attributes or characteristics they provide to the customer. This viewpoint views products as bundles of characteristics. These characteristics or attributes yielded by products are valued in the market and give products their value (worth). Such a viewpoint allows these attributes to become central in the formulation of enterprise strategies for issues like product diversification and market fit (Bromwich, M., 1990:28). According to this technique, costing attributes and their related values is the core interest, and this represents the basis for the customer value-based pricing.

Customer value-based pricing is especially relevant in highly competitive industries (Hinterhuber, A. and Liozu, S., 2012:71), to match price with real, unique value — the stuff that customers care about and competitors currently do not provide. When customer perceptions of value are high, prices may be increased and set at a level that doesn’t drive customers away, as long as the real, unique value is effectively communicated to the
customer. When perceptions of value are low, it is necessary to reduce prices accordingly (Hinterhuber, A. and Bertini, M., 2011:47).

Customer value-based pricing has the advantage of being perceived as responsive to customer concerns, and it results in prices that customers are willing to pay. It also recognizes that the differences in customer value perceptions and spending power can allow diverse prices to be set in different segments to enhance overall profitability (Shipley, D. and Jobber, D., 2001:311).

Among all pricing approaches, customer value-based pricing is certainly not the easiest one. Despite its advantages, it also involves disadvantages because it ignores costs, rivals’ prices, and other relevant influences if it is applied too rigidly. It also involves major difficulties in information collection because customer preferences, willingness to pay, price elasticity, and the size of different market segments are usually hard to find and interpret, which results in imperfect demand estimates. If more prices are charged than the perceived value, sales will suffer (Shipley, D. and Jobber, D., 2001:311). In addition, what increases the difficulty in estimating value is that the estimation of a product’s benefits and costs perceived by customers is very tricky, as these concepts are rather subjective and differ among customers (Korda, A. and Belogavec, S., 2004:1850).

Despite the advantages that the customer value-based approach may offer and the possibility of profitable pricing, it is interesting to note that it is in fact the least popular pricing approach and is harder to adopt than other pricing approaches (Hung, W. et al., 2010; Liozu, S. and Hinterhuber, A., 2012; Liozu, S. et al., 2012; Sunarni, C. and Ambarrani, A., 2019).

2.3 Matching Different Pricing Approaches to Distinct Market Structures:

According to Guilding, C. et al. (2005:128), the price-setting role concerns the extent to which an enterprise is a price-maker or a price-taker. Price-makers are enterprises that have some discretion in setting their prices or where a product is highly customized or a market leader. In these enterprises, managers who are responsible for price decisions depend on cost information when pricing their products. By way of contrast, price-takers are small enterprises operating in an industry where prices are set by the dominant market leaders and they have little influence over the prices of products. In
such price-taking enterprises, the scope for using cost information is likely to be restricted, where prices are determined by market forces rather than cost data. The classification type of enterprises impacts the pricing approaches adopted by the enterprise (Guerreiro, R. and Amaral, J., 2018:395).

Consequently, there is no general “best” or “worst” pricing approach, but there is a contingency approach, which is considered appropriate. This may help reduce the complexity that managers experience in pricing. That is, the pricing practices that enterprises should engage in and the effects of value, competition, and cost information on pricing are contingent on the type of enterprise and their product and market characteristics (Ingenbleek, P. et al., 2003). As product differentiation and market share of the enterprise limit its pricing conduct. An enterprise with a differentiated product and a considerable market share has a price-setting position based on cost calculation and establishes a significant value of the product compared to other enterprises, which must be in line with market prices.

Therefore, for pricing decisions, understanding the economic environment and the different types of market structure and competition is an important part of effective pricing. In general, markets can be classified into three broad categories based on the number of competitors and the degree to which they have the power to determine prices. These categories are: perfect (or pure) monopoly, perfect (or pure) competition, and imperfect competition, which includes monopolistic competition and oligopoly. The characteristics of these market structures will be discussed next (Monroe, K., 2003:36; Samuelson, W. & Marks, S., 2012:284):

A- Perfect monopoly:

In a monopolistic market, enterprises are price-makers because they have absolute authority to increase prices and optimize their profit. This occurs because only one seller supplies the product, and if not controlled in some way, that seller could exercise enormous influence over the marketplace and its prices. In this type of market, prices are generally high for products because enterprises have total control of the market and total market share, which creates entry barriers that prevent new competitors from entering the market, and buyers do not have another choice to meet their needs. Due to the high
barriers to entry in a monopolistic market, enterprises that manage to enter are often dominated by a bigger enterprise.

Sometimes, the government institutes price restrictions to limit the seller’s power and make sure that the monopolistic price does not harm the customers. Purely monopolistic markets are extreme and rare in the market because of the lack of absolute barriers to entry, such as a ban on competition or sole possession of all-natural resources.

**B- Perfect competition:**

When many sellers offer many buyers an identical product and no single seller can influence the product’s price, the market structure is labeled perfect competition. In such a market, prices are dictated by supply and demand, and enterprises are all price-takers because no one enterprise has enough market control and they have a small market share. Barriers to entry are relatively low and allow enterprises to enter and exit easily. Enterprises earn a sufficient amount of profit to stay in business; if they were to earn excess profit, other enterprises would enter the market and subsequently reduce the level of profitability. Perfect competition is also an extreme and rare in the market place and every real-world market combines elements of both ideal types of monopoly and perfect competition.

Therefore, between the extremes of perfect monopoly and perfect competition lies the broad setting in which most businesses operate: imperfect competition. Although there may be a large number of sellers and buyers in imperfect competition, fewer sellers compete than in perfect competition. In marketplaces characterized by a limited number of sellers, some sellers may hold relatively large market shares, enabling them to exert influence on the prices of the products they sell. Within the middle range of the competitive spectrum, economists have identified two distinct market structures: monopolistic competition and oligopoly.

**C- Monopolistic competition:**

In monopolistic competition, there are many sellers and buyers in the marketplace, which makes it similar to perfect competition, and all enterprises only have a degree of market control due to the large number of sellers and demand elasticity, which is the responsiveness of demand to price changes. Demand elasticity in monopolistic
competition is higher than monopoly. In this market, enterprises sell heterogeneous (dissimilar) products, which are close substitutes but have distinct features such as branding or quality. The degree of product differentiation is the key to price levels, because each product is perceived as unique and has an identifiable share of the market. Products can be differentiated in a number of ways, including quality, style, convenience, location, and brand name. Monopolistic competition has no barriers to entry, allowing any enterprise to enter a market if they perceive the potential profits to be attractive.

D-Oligopoly:

Oligopoly markets are markets dominated by a small number of sellers who influence and are influenced by the behavior of others. Thus, sellers must take their rivals’ actions into consideration when developing their competitive strategies. Oligopoly markets are becoming more common than ever. This type of market structure results from industry consolidation, a rise in international expansion, and a natural desire to benefit from economies of scale, all resulting in a number of mergers and acquisitions that leave a few enterprises dominating a particular market (Dzhabarova, Y. et al., 2020:1).

Oligopolistic enterprises face two conflicting temptations: to collaborate as if they were a single monopoly or to individually compete to gain profits by expanding output levels and cutting prices. Therefore, the authority for setting prices in oligopoly markets depends on whether competition or collusion is found.

Collusion is an explicit or implicit agreement to avoid competition with a view to increasing profit. Thus, collusion refers to the coordinated actions of oligopolistic enterprises to reduce industry output, increase prices, and distribute profits among themselves. A group of enterprises that collude to operate like monopolists is called a cartel (Curtis, D. and Irvine, I., 2020:245).

Another form of collusion is when small enterprises follow the price set by a dominant (price leader) enterprise, which is advantageous to give up part of the market to weaker enterprises at the so-called competitive fringe (edge). On the bigger part of the market, which it keeps, the dominant enterprise then behaves as a monopoly, where the enterprises at the competitive fringe behave in the same way as the perfectly competing enterprises and sell any volume of production for the price established by the leader.
enterprise. The leader is usually the biggest enterprise in the sector, with the lowest costs, a long tradition, a well-known brand, etc. (Severová, L. et al., 2011:582).

On the other side, there is competitive oligopoly, which means that oligopolists compete hard — it is very much like perfect competition — and they try to anticipate their rivals’ moves to make their own decisions. Enterprises in a competitive oligopoly may end up competing so fiercely that they all end up earning zero profits (Shapiro, D. et al., 2022:249).

In an oligopolistic market, enterprises can make either homogeneous or heterogeneous (substitute) products. In the case of homogeneous products, there is a strong dependence of enterprises on each other, and therefore even the slightest change in price by one of them significantly affects the behavior of other enterprises. On the other hand, enterprises would create differentiated products that are substitutes for each other. Here, competition exists both in price and non-price forms, represented by product innovations and advertisement (Severová, L. et al., 2011:580). That is, homogeneous oligopoly is very much like perfect competition, while heterogeneous oligopoly is very much like monopolistic competition.

Based on the previous characteristics related to the different forms of market structure — type of competition and product differentiation — we conclude that the effectiveness of cost, competition, and customer value for pricing depends to a large extent on whether the product has a high relative advantage and on whether competitive intensity in the market is high, and this is as follows:

- Cost-based pricing helps to understand the lower-boundary of price discretion, and it is best suited for price-making enterprises working in monopoly markets. The monopolist sets the price based on its own costs and the profit margin that satisfies him. In the case of government intervention, this may affect the profit margin percentage added to the cost. Therefore, cost-based pricing is suitable in markets in which competition is not severe (Rowley, J., 1997:187).

Also, in the case of collusion in oligopoly, enterprises banding together as a cartel or the price leader act as a monopolist, where they set the price based on their own costs enabling higher profits through reducing output and raising prices.
Competition-based pricing places its emphasis on competitors’ inputs, and it suits price-taking enterprises in perfect competition markets (highly competitive markets) with no product differentiation. Competition-based pricing provides a better understanding of the price ceiling if the product is more similar to competitors’ products in terms of the value it offers to customers. In this case, enterprises follow the dominant price in the market and work on reducing their costs in order to be able to sell their product at the price determined by the market and still achieve the desired profit margin.

With standardized products and increased competition, which can drive prices down, enterprises are guided by variable costs as the minimum price to be charged (Govender, D., 2000:64).

Similarly, enterprises working in oligopoly markets, based on unregulated collusion, follow the price set by the dominant enterprise. Consequently, they should seek to reduce their costs in order to be able to follow the predetermined price without making losses. Also, in the case of competitive oligopoly with homogeneous products, enterprises base their prices on the competitors’ prices, therefore following competition-based pricing.

Customer value-based pricing suits price-making enterprises in monopolistic competition, where understanding customers’ value perceptions is necessary to successful pricing. In this situation, product differentiation is high since the product is more difficult to be compared with alternative offerings. Each enterprise sets its own price based on the value perceived by its customers, which represents the price ceiling.

Customer value-based pricing is also suitable in competitive oligopoly markets, where enterprises set their own prices — in the case of heterogeneous products — based on the competitive advantage of the product and the related demand elasticity while taking into account the competitors’ prices at the same time.

3. Discussion and Conclusion:

One of the main managerial decision problems is pricing, which requires in-depth analysis by decision-makers. This is due to the fact that setting a price too high becomes a lost sale that would have been profitable at a lower price, and setting a price that is too low is rewarded with unprofitable work. An enterprise can only have the opportunity to make a sale and generate profit when its products are priced appropriately with respect to
their cost. However, determining the right price is a complex process, and managers must comprehend the factors that make some pricing decisions succeed and others fail. This requires a rigorous analysis of an enterprise’s cost structure, changing market supply and demand situations, competitors’ pricing schemes, and products’ perceived value by customers. Accordingly, price is set based on one or more of three variables: cost, competition, or the customer’s perceived value.

The traditional cost-based pricing approach is the most used, and both of the market-based approaches (competition-customer) should not be used in isolation from the cost factor, which represents the minimum price that could be accepted. Therefore, it is important that reliable costs be determined, free of any distortion. This confirms the importance of a good cost system that provides accurate and transparent product costs. This in turn emphasizes the need to adopt advanced managerial accounting techniques, like activity-based costing and attribute-based costing, which provide more accurate and objective cost data, either to use it as a base for setting prices or as an indicator for the minimum price that could be accepted.

In today’s highly competitive environment, enterprises should go beyond their own cost structure. They should act proactively and take their competitors’ actions into consideration, as well as customers’ needs and preferences. This gave rise to market-based pricing approaches, which take competitors and customers into account when setting prices.

Traditional cost-based pricing best suits price-making enterprises working in monopoly markets or oligopoly markets where cartels are formed. While competition-based pricing best suits price-taking enterprises working in highly competitive markets with no product differentiation, and customer value-based pricing best suits price-making enterprises working in competitive oligopoly markets with heterogeneous products differentiated based on the competitive advantage of the product.

Based on the above, we can get the following conclusions:

1- There is no generally best or worst approach for pricing. Each approach is best suited in certain circumstances, resulting in enhanced profitability and enterprise continuance.
2- No matter which approach is followed, cost is always the starting point for every pricing decision, representing the floor or minimum price to be accepted. Then it may be followed by a consideration of the market’s average competitive price and an evaluation of customers’ reactions. Noting that using full costs means the use of cost-based pricing, while using variable costs could mean using any of the pricing approaches. This assures that cost system refinement can play a significant role in rational price setting, no matter what pricing approach is in use.

References


