

**PRICING AND INTEGRATING IN STATE-OWNED  
CONTAINER HANDLING COMPANIES: THE CASE OF EGYPT**

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**ABSTRACT:** From macroeconomic point of view, Egyptian state-owned container handling companies (ESOCCH) play fundamental role in supporting the national economy, so it is vital to maintaining their competitiveness advantages among other competitors, in this context price competition is one of many ways that companies can compete in the marketplace, take into account that pricing is one of the challenging decisions; it is not a straightforward task, because of the existence of many pricing approaches, strategies, and capabilities, besides taking into consideration internal and external factors affecting pricing decisions. Consequently, in this paper, we analyze pricing process in ESOCCH to understanding current pricing process, in order to determine if it is necessary to improve it. Second discover if there is a link between pricing process and companies' vision and mission, to ensure sustainable development of these companies in long term. Third figure out the degree of integration among ESOCCH in general and in pricing process particularly, thus enhance their role in developing Egyptian economy. Based on that we used a concurrent triangulation approach, through collecting and analyzing both quantitative and qualitative data concurrently, then comparing the results to determine if there is convergence, differences, or some combination. That will be done via interviewing Chief Financial Officer at ESOCCH to understand for instance the pricing process, who sets the price, and internal and external factors affecting pricing decisions, meanwhile analyzing companies' mission and vision statements, and their current tariff.

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## **1- INTRODUCTION**

In maritime transportation system, there are several parties working together to get the job done. For example, port authority, agents, shipper or consignee, carrier, stevedores, government, and other service providers. So the question is “how each party pricing his service?” take into consideration that pricing decision can lead to either prosperity and growth or extinction and inefficiency, especially when searching for competitive advantage among same service provider, nowadays competition among container terminals around the world has increased dramatically, hence pricing is one of the challenging decisions; it is not a straightforward task, because of the existence of many pricing approaches, strategies, and capabilities, besides many factors affecting pricing decisions, like market structure where the company operate. On the same context by looking precisely in port services and by whom they provided, we will find that aids to navigation, pilotage, towage, berthing /unberthing, fire fighting, weighing, and tallying of goods provide by port authority mostly in developing countries, on the other hand cargo-handling on quay, storage, stevedoring, repair of ships, and surveillance of cargo provided by other public bodies and private undertakings [1]. Considering Egyptian maritime transport sector in the light of that, we will find Egyptians port authorities providing the same services other port authority in developing countries proved, furthermore container and cargo handling are provided by both other public bodies and private undertakings. There are six container and cargo handling companies in Egypt, three of them are state-owned companies, and considered subsidiaries companies for Holding Company for Maritime and Land Transport, these three companies are: Alexandria Container and Cargo Handling Co. (ACCH), Port Said Container and Cargo Handling Co. (PCCH), and Damietta Container and Cargo Handling Co. (DCCH). Further, the other three companies are operated through Build operate transfer (BOT) concession agreement between Egypt government and Top Global Operators (TGOs), these companies are Suez Canal Container Terminal (SCCT) - Alexandria International Container Terminals (AICT) - DP WORLD Sokhna (DPWS). From the macroeconomic point of view, these state-owned container handling companies play a vital role in supporting the national economy, through contributing in enhancing Gross National Income (GNI), facilitate national trade movement, providing a source of foreign currencies, reduce unemployment rate .... etc. Based on the importance of pricing process, and the role ESOCCH in the Egyptian economy, this paper aims to, Frist understanding current pricing process in ESOCCH, in order to determine if it is necessary to improve it. Second discover if there is a link between pricing process and companies' vision and mission, to ensure sustainable development of these companies in the long term. Third figure out the degree of integration among ESOCCH in general and in pricing process particularly, in the context of container market structures, thus enhance their role in developing Egyptian economy. To achieve paper aim this article is organized as follows. Section 2 clarify several issues identified in the literature related to pricing concepts, such as pricing definition, objectives, and approaches, also factors affecting pricing decisions, besides market structure and its consequence in terms of pricing. Thereafter section 3 illustrate pricing concept in container handling market.

Subsequently, section 4 discusses research methodology and methods. Then section 5 reports the research findings and discussion. Finally, section 6 presents the conclusion.

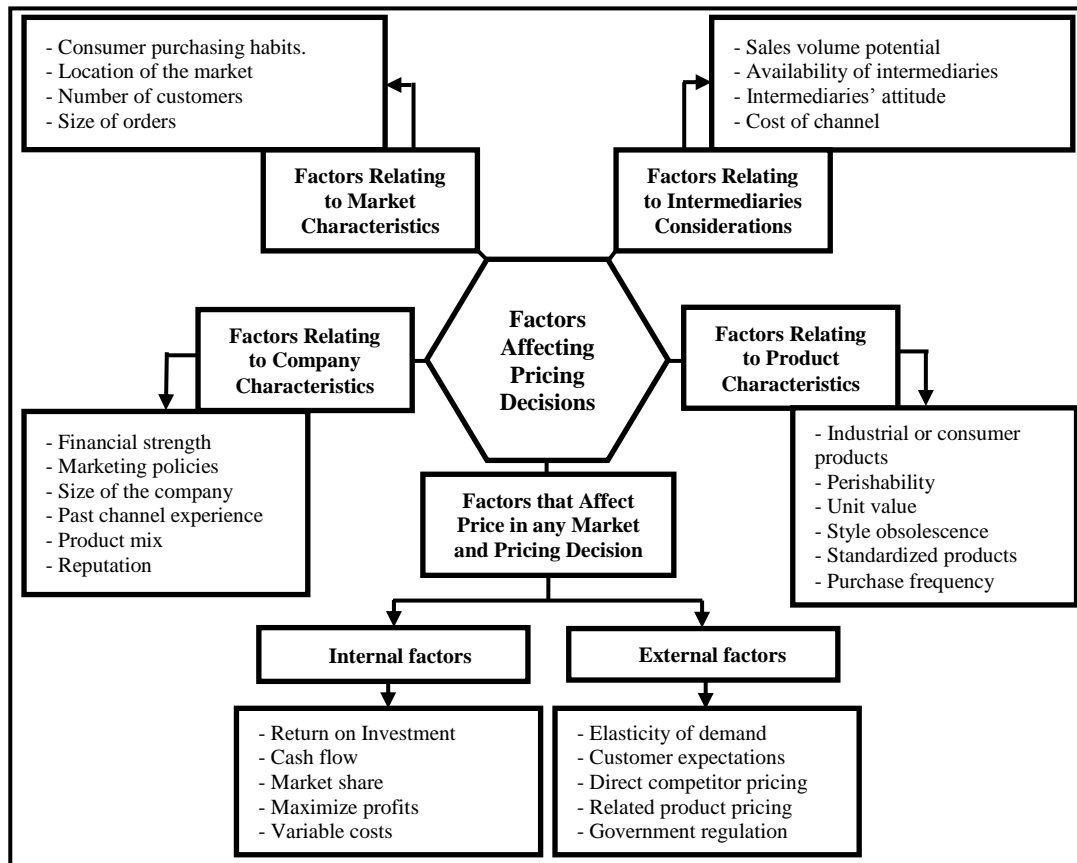
## **2- THEORETICAL FRAMEWORK**

### ***2-1 Definition of Price***

Generally price concept revolves around what is given up or sacrificed to obtain a product or service [2][3][4][5][6] based on this concept some authors argue that there are two types of price, first one is the actual price of a product which called objective price and the other one is the price as encoded by the consumer, which refers to perceived price [7][8][9][10],so from customer point of view money is one of many components of the price exchange for acquiring a product or service, consequently companies compelled to have comprehensive view about its product and service, and take in consideration for instance Garvin's eight dimensions of quality which are performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. As a result, there are numerous factors affecting pricing decision.

### ***2-2 Factors Affecting Pricing Decisions***

Factors that affecting pricing decision can be classified simply as internal and external company factors, [6][11] for instance internal factors affecting pricing decisions include company's marketing objectives, marketing mix strategy, costs and organizational considerations, besides company's strategy, mission, vision, and values. Also, external factors affecting pricing decisions involve the market and demand for the product or service, competitors' activities and other external factors. Furthermore Haron [12] stated a comprehensive review of factors influencing pricing decisions, he classified this factors to five groups, which are factors that affect price in any market and pricing decision, factors relating to product characteristics, factors relating to company characteristics, factors relating to market characteristics, and factors relating to intermediaries considerations. Each group includes many factors. Figure (1) summarized Haron's review of factors affecting pricing decisions.



**Source:** prepared by researchers based on Haron's review of factors affecting pricing decisions

**Figure (1) factors affecting pricing decisions**

### **2-3 Pricing Objectives**

After the company examining factors affecting its pricing decisions, and determined its mission, vision and values statement, it has to set its pricing objectives before initiate pricing its products and services [13], pricing objectives provide directions for action [14], it must be integrated with mission, vision, and values, without this integration not only the pricing process loses its meaning, but also it threaten the company's ability to achieve its strategic goals, Hence the company must determine its pricing objectives carefully, which can be short term and long term, accordingly many authors tried to summarise companies pricing objectives. for example, Pennsylvania [15] state that company pricing objectives may be partial cost recovery, profit margin maximization, profit maximization, revenue maximization, quality leadership, quantity maximization, status quo and survival.

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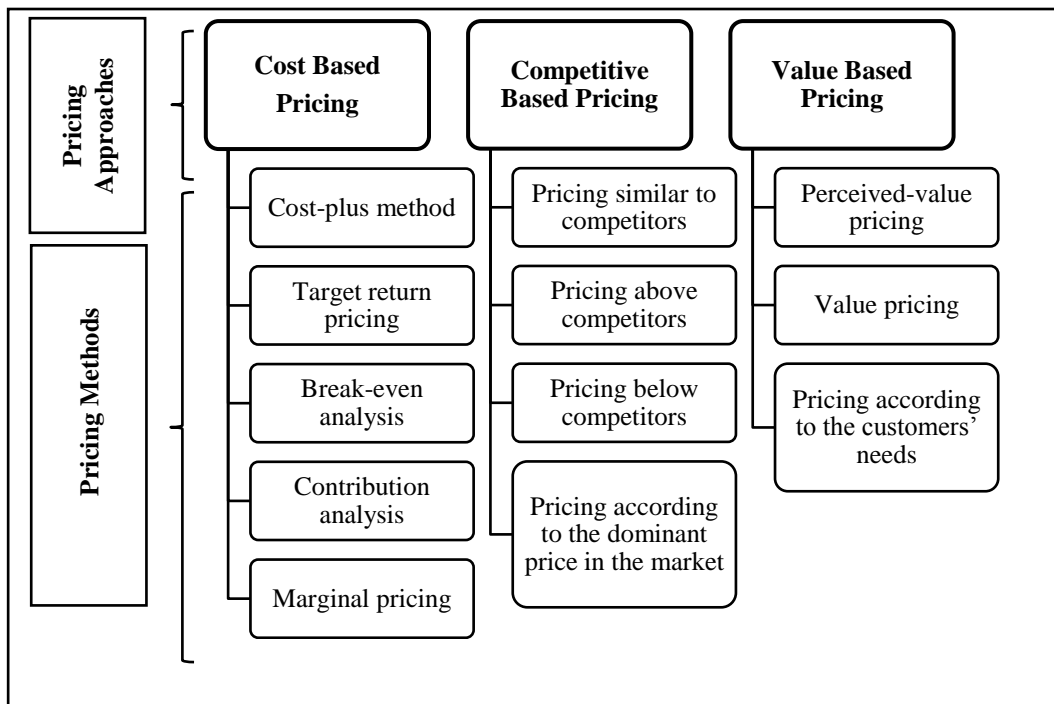
Further, Avlonitis [14] summarized pricing objectives in profit maximization, achievement of satisfactory profits, sales maximization, achievement of satisfactory sales, market share maximization, achievement of a satisfactory market share, market share increase, cost coverage, return on investment (ROI), return on assets (ROA), coverage of the existing capacity, liquidity maintenance and achievement, price differentiation, service quality leadership, distributors' needs satisfaction, creation of prestige image for the company, price stability in the market, price wars avoidance, sales stability in the market, market development, discouragement of new competitors' entering into the market, price similarity with competitors, maintenance of the existing customers, customers' needs satisfaction, determination of “fair” prices for customers, attraction of new customers, long-term survival and achievement of social goals.

#### ***2-4 Pricing Approaches***

In accordance with company determination of its pricing objectives, it has to find the way to achieve this objective; here come the debate among authors, some authors call this process pricing strategies, so defining pricing strategies as a generic approach to pricing [16][17][18], others defining pricing strategies as “*a reasoned choice from a set of alternative prices (or price schedules) that aim at profit maximization within a planning period in response to a given scenario*” [19 p.147]. Furthermore, some authors call this process pricing approaches, others called it pricing methods. For example, Oxenfeldt [20] defines pricing methods as “*the explicit steps or procedures by which firms arrive at pricing decisions*”.

Consequently the way to achieve company objective under each point of view differs, Johansson [16] assert that there are three pricing strategies which are cost, competition, and customer value[16][17][18] in the same manner [6] state that there are three general pricing approaches which are cost-based pricing, competitive-based pricing, and value-based pricing, on the other hand [21] claimed that there are six major pricing strategies, which are skimming, penetration, opportunistic, leader, neutral and cost-plus. Too [15] emphasize that skim pricing, product line pricing, product bundle pricing, penetration pricing, premium pricing, optional product pricing, multiple pricing, good, better, best pricing, loss leader and competitive pricing are some of the pricing strategies.

Based on that we will follow [6] classification that there are three main pricing approaches which are cost-based pricing, competitive based pricing, and value-based pricing the company can use to achieve its pricing objectives, complement to this classification we will adapt [14] assertion that there are twelve pricing methods falling into three main approaches.



**Source:** prepared by researchers based on previous studies.

**Figure (2) summarized pricing approaches and methods**

- **Cost Based Pricing approach**

Generally in cost based pricing the company first designs a product or service, second figures out the total costs to make the product or provide the service, then determine a factor for profit, and finally, sets a price which covers its cost and profit. [11][22][23] Based on that this approach is simple and widespread use, however it ignores demand and market conditions, competitors and competitive considerations, target marketing, and positioning, and potential substitutes.

- **Competitive Based Pricing approach**

Competitive Based Pricing approach the company will start with its competitor's price as a commencement point for price setting [6] [14] [15] [24] companies use this approach mainly when differentiating its product from other competitor's products is difficult, or it provides the same service its competitors provide. That doesn't mean that the price has to be the same, the company may seek to keep its prices lower or higher than competitors because it does not seek a rigid relation between its price and its own demand, so according to Avlonitis [14] the company may Pricing its products and services similar to competitors or according to the market's average prices, above competitors, below competitors, or according to the dominant price in the market. The fundamental advantage of this pricing approach is avoiding price wars among companies in the market, which start when companies continuously lower prices to undercut the

competition, on the other hand, protect companies from falling sales, when pricing above the competition. The main disadvantage of this approach it does not take the consumer perspectives into consideration.

- **Value Based Pricing approach**

In contrast, to cost-based pricing approach value-based pricing approach start with the customer, not the cost the company incurred [23] [25] [26] [27] [28], so the price is determined according to the value that a product or service delivers to a segment of customers [29]. In spite of many authors refer to value-based pricing as one of the best pricing approach [30] it is not widely adopted approach [14][31][32] for many reasons, for instance difficulties in making value assessments, communicating value, market segmentation, sales force management, and senior management support [29].

### ***2-5 Pricing and Market Structure***

In the light of what mentioned above, choosing pricing approach is linked to market the company operates in, as a result determining market structure is a key factor in understanding how much freedom a company has to set prices. Correspondingly the following part will demonstrate this link.

Market structure classified into 4 main types; perfect competition, oligopoly, monopolistic competition and monopoly market. Each of them has different characteristics regarding the number of firms, the similarity of the products they sell, and the ease of entry into and exit from the market [33]. For instance perfect competition market characterized by (a) a large number of small firms, so each firm is so small relative to the total market, hence no single firm can influence the market price it is just a price taker [34], and the price is determined by market supply and demand conditions [35], (b) selling a homogenous product where all firms produce a standardized product or provide the same service, and (c) it is very easy to enter or exit the market. On the other hand monopoly market is the opposite form of perfect competition market, for example entry barriers in a monopoly market is very high [36] so there are only one provider of the product or service, as a consequence this monopolist is considered a price maker and has the power to increase prices without losing all of his customers.

The other two markets types lie between these extreme cases [37]. In oligopoly market structure there are only a few companies, these companies sell a product or provide service that relatively standardized, but is similar enough that they're in competition. There are some significant natural or created barriers to entry; also the demand is static in the short term, so if one company decrease its product or service price will usually be matched by another's price decreases, but the opposite isn't true [11], therefore companies in this market face kinked demand curve [38].



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The last type of market structure is monopolistic competition which described as a market with many companies, sell goods and services that are similar, but somewhat different, besides consumers might be willing to pay a bit extra for their preferable brand, but if the price differential is too large, they will choose a substitute brand instead, so there are non-price competition such as advertising, service provided after the sale, and emphasis on trademark quality [34], table (1) summarizes different market structure.

**Table (1)Types of market structures**

Market Structure	Perfect competition ←	Monopolistic competition	Oligopoly	Monopoly →
<b>Number of Producers</b>	Many	Many	Few	One
<b>Type of Product</b>	Standardized	Differentiated	Standardized or Differentiated	Unique product
<b>Power of firms over prices</b>	None power – price taker	Some power – price maker but actual and potential competition limits pricing power	Some power-price maker, but an interdependent behavior	Considerable power, price maker- constrained by demand curve and possible regulation
<b>Barriers of entry</b>	Low	Low	High	Very High
<b>Non-price competition</b>	None	Advertising and product differentiation	Advertising and product Differentiation	Advertising

Source: prepared by researchers

### 3- PRICING IN CONTAINER HANDLING MARKET

#### *3-1 Container Shipping Market*

Maritime transport is the backbone of world trade and globalization, through transporting about 90% of total world trade in 2016 [39], UNCDAT [40] recorded an expansion in world seaborne trade by 2.1% as a result of growing world GDP by 2.5%, In this context, the containerized trade has witnessed increasing attention over the past decades due to its advantage, for instance it represent 17 % of global seaborne trade by volume in 2015, after representing only 3% of total seaborne trade in 1980 [40]. This upsurge has been concurrently matched with massive investments in new container terminals worldwide; also shipping lines has also invested heavily in the container vessels, in 2016 world container fleet reached 244,274 vessel, representing 13.5% of the world fleet, Container ship increased not only in number but also in capacity, e.g. Container ship capacity increased from 1,500 TEU in 1968 to almost 20,000 TEU in 2015. Depend on these on-going changes in container shipping market, the pattern of demand and supply for

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different parties in this market differs over time. Correspondingly the following part will discuss demand and supply in container handling market to determine its structure and its effect on pricing process in the container and cargo handling companies.

### ***3-2 Demand and Supply in Container Handling Market***

In container handling market there are two main players, container liner shipping (represent the demand side) and container handling companies (represent the supply side). According to Sys, [41] results of studying concentration in container liner shipping market from 1999 to 2008, using indicators of concentration such as cumulative share of container liner operators, Herfindahl-Hirschman Index (HHI), and Instability Index devised by Hymer and Pashigan [42], she concluded that container liner shipping industry operates is an oligopolistic market, table (2) summarised container liner operators acquire 50% of total capacity in service from 1995 to 2017, from table to in 1995 only 16 container liner operators controlling 50% of the market, however in 2017 only 5 carriers have this market power. [41][43]

**Table (2) Liner operators making up 50% of total capacity in service**

1995	2000	2003	2008	2016
Maersk	Maersk-SL+SCL	Maersk-SL+Safmarine	APM - Maersk	APM-Maersk
Evergreen Group	Evergreen Group	Mediterranean Shg Co	Mediterranean Shg Co	Mediterranean Shg Co
COSCO Container L	P&ONedloyd	P&ONedloyd	CMA CGM Group	CMA CGM Group
Sea-land	Hanjin / DSR Senator	Evergreen Group	Evergreen Group	COSCO Container L
NYK	Mediterranean Shg Co	Hanjin / DSR Senator	Hapag-lioyd	Evergreen Group
P&ONedloyd	NOL/APL	APL	CSCL	-
Hanjin	COSCO Container L.	COSCO Container L	COSCO Container L	-
P&O Containers	NYKCMA-	CGM Group	-	-
MOL	CP Ships/Americane	NYK	-	-
K Line	Mitsui-OSK L.(MOL)	CP Ships Group	-	-
Zim	Zim	-	-	-
Hapag-lioyd	-	-	-	-
NOL/APL	-	-	-	-
DSR Senator	-	-	-	-
MSC	-	-	-	-
Yang Ming Line	-	-	-	-

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**Source:** prepared by researchers based on Alphaliner, [43] and Sys, [41].

In the same context according to Abo Shabana and Awad, [44] the supply side of container handling is also highly concentrated, only 5 operators control 50% of total market share for container handling in 2013, these operators called global terminal operators and they are Hutchison Port Holdings, APM Terminals, PSA International, Cosco Group, and DP World, so container handling market is an oligopolistic market.

Considering Egyptian container handling market, we find that there are only 6 container handling companies operate in Egypt, 5 of them in Mediterranean and the other one in Red sea, also three of them are state owned companies (DCHC, ACCH, and PCCH) other 3 container handling companies are operated through Top Global Operators (DPWS, AICT, and SCCT). So, a container handling market in Egypt is an oligopoly market in which only a few terminals are providing services and these services are relatively standardized, but is similar enough that they're in competition. In addition to that there are some barriers to entry considering expensive infrastructures, so we can claim first pricing process will be affected by this market structure, second pricing process in the state-owned companies are the same, also there is integration among them, finally there isn't a significant difference among their tariff. So the following part will discover the validity of these claims.

#### **4- METHODOLOGY AND METHODS**

To achieve research aim concurrent triangulation approach will be deployed, through collecting and analyzing both quantitative and qualitative data concurrently and then comparing the results to determine if there is convergence, differences, or some combination among ESOCCH in pricing process, and finding out if there is any kind of integration among them. That will be done via semi-structured interviews with Chief Financial Officer in ESOCCH to understand for instance the pricing process, who sets the price, and internal and external factors affecting pricing decisions, meanwhile analysing companies' mission and vision statements, meantime statistically test research hypothesis which is “there isn't a significant difference among ESOCCH's tariff”, then compare the results of quantitative and qualitative data analysis, so we expect to find harmony among the results of this three steps analysis. To analyse interviews data and companies' mission and vision we will use qualitative content analysis, further to test research hypothesis we will start with both Kolmogorov-Smirnov and Shapiro-Wilk test of normality, to assess the normality of data and determine either we will use Analysis of variance (ANOVA) which assume the normality distribution of the data or The Kruskal-Wallis test which does not assume normality.

#### **5- DATA DESCRIPTION**

As mentioned above this study depends on quantitative and qualitative data, so we obtained this data as follow:

##### ***5-1 Semi-Structured Interviews***

We conduct semi-structured interviews with Chief Financial Officer in ESOCCH, these interviews revolve around three pillars, first asking about current pricing process in

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these companies, second find out the link between pricing and company’s mission and vision statements, finally discover the degree of integration among these companies. To get a clear idea about each pillar the interviews was undertaken with ten questions - classified into three groups according to pillars -; also participants were given a degree of freedom in answering these questions. Table (2) summarize semi-structured interview questions.

**Table (2) Semi-structured interview questions**

Pillar	Questions
Understanding current pricing process in ESOCCH	Q1. Is there a written pricing policy in the company? Q2. Who sets the price for the company? Q3. Are there special tariffs for some shipping lines? Q4. Is The Holding Company of Maritime & Land Transport interfering company’s pricing process? Q5. Does the company have the freedom to determine the price?
Determine the link between pricing process and company’s mission and vision	Q6. What is the company’s marketing strategy? Q7. Is there a link between the company's strategy and its tariff?
Discover the degree of integration among ESOCCH	Q8. Are other Egyptian state-owned container and cargo handling companies are considered competitive companies or allies? Q9. Is there coordination between the Company and other ESOCCH? Q10. Is there a significant difference among ESOCCH’s tariff?

**Source:** prepared by researchers

### **5-2 Companies’ Mission and Vision Statement**

To have the three Companies' mission and vision statements, their official website was reviewed, based on that table (3) summarize mission and vision statements for them.

**Table (3) Mission and Vision statements of ESOCCH**

Company	Statement	
ACCH	Vision	The company is planning to be the leader in facing the growth in the volume of containers traffic (Import, Export, and Transhipment), Offering an integrated and distinguished service as well as adding new activities to the multimodal transport chain.
	Mission	ACCH offers an optimal blend of Maritime Services, comprising stevedoring and storage with complete safety, security, and <b><i>competitive tariff of both Domestic Foreign Trade and Transhipment Container Handling in the East</i></b>

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		<i><b>Mediterranean</b></i> , matching with the Standard Performance Measures of the Industry. To survive, and achieve both continuous growth and profitability, This is made through procurement of the most suitable updated technology Handling Equipment and recurrent the technical and managerial experienced, qualified, skilled, upgraded, motivated staff. And depending on an effective and efficient Information System; and Technical & Managerial upgrading to achieve significant value for the company on behalf of Customers, Employees, Stakeholder and Society in general.
	Targets	Service quality Higher productivity Shorter turning time for vessels Special services for clients satisfaction <i><b>Competitive prices for service performance</b></i>
DCHC	Vision	To maintain the leading position among container terminals in the Mediterranean Sea, by providing world class quality services that meet our customers' expectations, while considering the local community welfare.
	Mission	Through an efficient and up-to-date container terminal in Damietta Port, DCHC performing all container handling related operations, also handling and stevedoring different types of general cargo.
PSCCHC	Vision	PSCCHC is mainly established to provide the best services & facilities to the world shipping lines calling our terminal using a very integrated logistic system.
	Mission	PSCCHC is a leading company operating which is belonging to the Holding company for Maritime and land Transport and followed to the public sector business who operates PSCCHC Port Said west port since 1984. It is a joint stock Egyptian Co. affiliated to the holding Co. for Maritime & Land Transport.
	Objectives	PSCCHC aims to achieve a very remarkable container & cargo handling volume at <i><b>very competitive tariff</b></i> in a very short time aiming to enlarge revenues & profits to serve the national income & raise the living standards for the company employees.

**Source:** prepared by the researchers based on companies' websites.

### 5-3 Tariff Data

To obtain accurate data about the current tariff of the ESOCCH, we asked the three companies to provide us with its current tariff, through completing the questionnaire (Appendix 1) includes the tariff of main container and cargo handling services they provide. According to data confidentiality for some companies, we will review the result of the tariff analysis only. After analyzing the responses of the three ESOCCH, we classified companies' services according to the questionnaire to 43 services, for example,

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we count discharging import full/empty containers using terminal's cranes' service for 20 feet Full/Empty container as 2 different services, and so on.

## **6- RESULTS AND DISCUSSION**

This section aims to present the results of the three stages of data analysis.

### ***6-1 Companies' Mission and Vision Statements Analysis Results***

The aim of this step of the analysis is to discover if there is a link between pricing process and companies' mission and vision because if this link exists that means the company is giving pricing process great interest as one of long-term key success factors. On the other hand companies' mission and vision must be reflected in the pricing process of the company which we will analysis through semi-structured interviews in the next part. As above-mentioned qualitative content analysis will be used to analysis mission and vision statements, by reading through the statements and looking for any words related to price, based on that related words appear in bold, italics and underlined in table (3).

The content analysis shows that PSCCHC and ACCH explicitly stated that they seek to achieve competitive prices for their services; However, DCHC doesn't mention pricing either in mission or vision statements. Consequently, we expect to find a link between pricing process and company's mission and vision in semi-structured interviews analysis results, especially for PSCCHC and ACCH.

### ***6-2 Semi-Structured Interviews Analysis Results***

Through semi-structured interviews we want to understand current pricing process in ESOCCH, also figure out if pricing process connected with company's mission and vision, as we concluded from the companies' mission and vision statements analysis, furthermore reveal the degree of integration among the three companies, so the following part will review semi-structured interviews analysis results.

#### **6-2-1 Understanding current pricing process in ESOCCH**

Participants from the three companies agreed that there are only general policies guiding pricing process, and there is no specified written policy, thus there is a degree of freedom to determine the tariff according to economic situation and price changes in the market, also The Holding Company of Maritime and Land Transport doesn't interfere in company's pricing process, it give the companies the freedom to determined its tariff, but the companies have to inform The Holding Company of Maritime & Land Transport with the change in tariff and the reasons for this change, and how this changes will affect company profit. Pricing process depend on fundamental principle which cover the company's costs, meanwhile achieving competitive tariff, these two principles consistent with oligopolistic container handling market structure, where the companies are trying to avoid price wars among them, so they follow competitive based pricing approach, while trying to provide some advantages to attract shipping lines, thoughtentering into a long-

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term contracts with them, these contracts depend on offering some privileges to the shipping lines, in return for guaranteed a certain volume of container throughput. Generally, pricing decision takes place through specialized committee in the company called “Tariff committee”, this committee is responsible for studying all internal and external factors associated with pricing and also studying the competitors’ tariff, then the recommendation of this committee is reported to the Board of Directors to make the final decision. Participants emphasized the role of companies' ownership -as a state-owned enterprise- in the pricing process. They indicate that their companies have a social responsibility towards Egyptian economy, through support Egyptian exports, by giving loading export containers with Egyptian products 50% a discount, comparing to the tariff of loading export containers with non-Egyptian products. Also increase the grace period for storage containers with Egyptian products, besides giving a discount for storage container with Egyptian products.

**6-2-2- Determine the link between pricing and company’s mission and vision statements**

When participants were asked about the link between pricing and company’s mission and vision, they confirmed that this link exist, for example (Interviewee #1) indicating that his company mission include achieving competitive prices for its service, and that is reflected in tariff committee activities, when it start with studying competitors’ tariff before signing a long-term contracts with a shipping line. So this is consistent with company’s mission and vision statements content analysis results.

**6-2-3 Discover the degree of integration among ESOCCH**

Participants assert that the degree of integration among the three companies differs according to many factors, first from market share point of view, there is competition among them especially in transshipment container handling, this competition exist due to the oligopolistic market structure, and the separation among them in day to day management activities, for instance, each company has its own board of directors, organization structure, and accountable for its performance in front of The Holding Company of Maritime & Land Transport. Second, from the macroeconomic viewpoint, they integrate to participate in achieving the different goals and objectives of Egyptian Sustainable Development Strategy 2030, through following The Holding Company of Maritime & Land Transport strategic instructions, for instance collecting tariffs in US dollars to help in increasing the level of foreign exchange reserves. On the other hand, participants agreed that there isn’t difference among ESOCCH tariff, so in the next part, we will statistically test this claim.

**6-3 Statistical Analysis Results**

To test research hypothesis first descriptive statistics were used to describe the data, table (4) summarize main descriptive statistics for the three companies’ tariff data. From table (4) positive values for the skewness for the three companies indicate that their tariff data are skewed to the right, also positive kurtosis for ACCH and DCHC indicates a

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heavy-tailed distribution for their tariff data, and negative kurtosis for PSCCHC indicates a light tailed distribution for its tariff data. As a result, data are not normal. To make sure about this result we will test the normality of the data using Kolmogorov-Smirnov and Shapiro-Wilk.

**Table (4) Descriptive statistics**

Descriptive		Statistic	Std. Error
ACCH	Mean	64.5385	7.24367
	Skewness	.944	.378
	Kurtosis	.254	.741
DCHC	Mean	67.8333	8.26189
	Skewness	.959	.378
	Kurtosis	.452	.741
PSCCHC	Mean	63.3077	6.94388
	Skewness	.550	.378
	Kurtosis	-.526	.741

The statistical results of Kolmogorov-Smirnov and Shapiro-Wilk (Table 5) show that a sample of tariff data didn't come from a normally distributed population, at significance level  $p=0.05$ , So we will use Kruskal-Wallis.

**Table (5) Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Co.1	.154	39	.020	.908	39	.004
Co.2	.132	39	.086	.900	39	.002
Co.3	.133	39	.078	.941	39	.040

a. Lilliefors Significance Correction

The statistical results of Kruskal-Wallis (Table 6) show no significant differences among the three ESOCCH's tariff at significance level  $p=0.05$ .

**Table (6) The Results of Kruskal-Wallis test**

	Tariff
Chi-Square	.016
df	2
Asymp. Sig.	.992



## 7- CONCLUSIONS

The paper has shown that there are two types of price, first one is the actual price of a product which called objective price and the other one is the price as encoded by the consumer, also there are three main pricing approaches which are cost-based pricing, competitive based pricing, and value-based pricing the company can use to achieve its pricing objectives, in cost based pricing the company first designs a product or service, second figures out the total costs to make the product or provide the service, then determine a factor for profit, and finally sets a price which covers its cost and profit, on the other hand in competitive based pricing approach the company will start with its competitor's price as a commencement point for price setting. In contrast to cost-based pricing approach value-based pricing approach start with the customer, not the cost the company incurred. Furthermore, pricing decision depends on the market structure the company operates in, for instance, perfect competition market structure the company is price taker while in monopoly market company is the price maker; However in an oligopolistic market like container handling market companies have some power over the price.

Container handling market in Egypt is an oligopoly market in which only a few terminals are providing services (three of them are state-owned companies {DCHC, ACCH, and PCCH} other 3 are operated through Top Global Operators {DPWS, AICT, and SCCT}) and these services are relatively standardized, but is similar enough that they're in competition. In addition to that, there are some barriers to entry considering expensive infrastructures. By analyzing pricing process in ESOCCH we find that PSCCH and ACCH explicitly stated that they seek to achieve a competitive prices for their services, however, DCHC doesn't mention pricing either in mission or vision statements, too there are only general policies guiding pricing process, and there is no specified written policy, besides pricing process depend on fundamental principle which are cover the company's costs, meanwhile achieving competitive tariff, also pricing decision takes place through specialized committee in the company called “Tariff committee”. Over and above ESOCCH have a social responsibility towards Egyptian economy, through support Egyptian exports. Further, there is a link between pricing and company's mission and vision. Also, there is competition among them especially in transshipment container handling from the market share point of view, however from the macroeconomic viewpoint, they integrate to participate in achieving the different goals and objectives of Egyptian Sustainable Development Strategy 2030, more there areno significant difference among the three ESOCCH's tariff.

Based on these findings we recommend the followings: first each company must have a written pricing policy determined general rules and principles so the performance of tariff committee can be easy to evaluate, second there must be more integration among the three companies to increase their comparative advantage, for instance, more knowledge share among them. Finally, their pricing decision must be complemented with their social responsibility by increasing their role in achieving national development and integrating with Civil society and economic organizations.

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**Appendix 1**  
**Questionnaire about companies' tariff**

Tariff	20' Feet		40' Feet	
	Full	Empty	Full	Empty
Discharging Import Full / Empty containers using terminal's cranes. The charge includes: Discharging the container from the vessel to terminal means of transport by Terminal Gantry Cranes. The transfer of the container to the terminal's Import Yard/Empty Yard using terminal's equipment. Container inspection and reporting any damage. Loading the container to the customer's vehicle. Storage the container.				
Loading Export containers with Egyptian products /empty containers using terminal's cranes. The charge includes: Loading the container from means of transport to its place of storage in the vessel by Terminal Gantry Cranes. The transfer of the container from terminal's Export Yard/Empty Yard to the vessel's side on the terminal's means of transport using terminal's equipment. Container inspection and reporting any damage. Unloading the container from customer's vehicle. Storage the container.				
Loading Export containers with non-Egyptian products using terminal's cranes. The charge includes: Loading the container from means of transport to its place of storage in the vessel by Terminal Gantry Cranes. The transfer of the container from terminal's Export Yard to the vessel's side on the terminal's means of transport using terminal's equipment. Container inspection and reporting any damage. Unloading the container from customer's vehicle. Storage the container.				
Discharging the transshipment container from the vessel to the terminal's transit yard and Loading it on another ship or on a land transport means in the case of taking it outside the terminal. The charge includes: Lashing/Unlashing. Handling of IMO containers. Handling of OOG Containers (Out of Gauge). Storing the container for 10 days free.				
Restow (upon carrier/agent request) (a) Cell/Cell within the same bay on board the vessel. (b) One bay to another bay directly or via quay. (c) Restow hatch cover from place to place on board the vessel or via quay				

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Lashing/Unlashing				
Transfer of containers to LCL yard using terminal's lift on cranes, stuffing at yards, unstuffing of containers at warehouses, return of empty container to empty yard				
As per customer/agent request: Transfer of full/empty containers between the internal/external terminal yards and vice-versa. charges include: Terminal's means of transport				
Lift-on/Lift-off by terminals cranes				
Covering services rendered at yards and gates:				
Cleaning inside and outside of containers as per agent request				

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