



# The Relationship between Product Market Power and Exclusive Pricing in Holding Industries in Listed Firms in Stock Exchange

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## ABSTRACT

**Objective:** Business units increase their products market power to survive in market. This matter can reduce financial supplement costs such as exclusive pricing. Therefore, the objective of this research was studying the relationship between product market power and executive pricing in holding industries in listed firms in stock exchange. The used data includes combined sample by 4 listed firms in stock exchange in holding industries. **Methodology:** Methodology of this research is correlational, and multivariate regression model based on definite data was used to analyze data. **Results:** Results of this research showed that product market power and exclusive pricing had significant and reverse relationship. **Conclusion:** In other words, increasing product market power reduces product pricing. In addition, debt ratio has positive and significant relationship and firm size has reverse and significant relationship with exclusive pricing.

## 1. Introduction

The company's capital structure to the structure of financing sources, such as short-term debt, bonds, long-term debt, preferred stock and common stock refers. Based on daily increasing growth of international business in the world and economy globalization in recent decades, it is essential to identify advantages and disadvantages of domestic industries to protect competitive space and promote domestic industries power. Therefore, steps can be taken to increase domestic industries power in global level by selecting accurate economic policies. On the other hand, today world evolutions aren't seen efficient to justify firms success in business and more profitability to reach state economic development according to markets divisions, products varieties, different technologies, and some theories, particularly ones based on selling in full competitiveness. Thus, power can be introduced as increase in ability of market ratio, profitability, added value, and stay in competitiveness scene for a long time.

Product market power is made by combination of assets and processes. Assets are natural such as natural resources or manufactured by human such as infrastructures and processes that change assets to the obtained economic resources from selling to customers. The issue of studying the power can be viewed in another way and that is power making resources. Power making resources can be classified to technological, organizational, and human force. The competitive advantage obtained by human force has more sustainability and durability than the other competitive advantages and more time is needed for competitors to imitate these competitive advantages.

One of effective factors on market power is capital cost indexes that Marin & Sicotte (2003) showed more debt cost and exclusive pricing lead to more competitiveness about firm business in market. Thus, this issue is effective on the related decisions on capital structure such as capital cost (Sarkar, 2014). Debt cost made by borrowing is one of the most important determinant factors in determination risk of creditors' information, and risk of non-payment obligations has main and principal role in investors and creditors' decision making. Role of debt cost in such decisions is considered as the main criterion of decision in evaluation decisions.

On the other hand, exclusive pricing is one of principle conceptions in financial literature with significant role in financial supplement and investment decisions. Firm management must mention exclusive pricing along with the proper financial resources. Since exclusive pricing is based on the expected return rate by investors, related to the accepted risk by them (same reference), and also the significant part of imposed non-operational costs on firm are

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consisted by financial supplement cost, and changing operational profit to the resulted loss by permanent activities of firm is caused by imposition these costs, studying the relationship between capital costs on firms power is important.

Lack of enough studies about the relationship between power and exclusive pricing made this motivation in authors of this article to study it as the first research on the effect of power on exclusive pricing in listed firms in stock exchange. The objective of this study shows whether power increase relates to the product pricing or not? This issue as a scientific breakthrough provides useful information to potential and active investors and also financial creditors and analysts; in addition, the research results can suggest new ideas to do new research in related studying fields to capital cost. Later, research structure includes theoretical bases and background, methodology, hypotheses test, and research results.

## **1.1 Theoretical Bases**

### **1.1.1 Pricing system in Iran (historical trend)**

Five time periods were considered for more precise pricing procedure as following:

**First period:** before 1973

**Second period:** 1971-1978

**Third period:** 1978-1989

**Fourth period:** 1989-1994

**Fifth period:** since 1994

#### **1) Period before 1973**

Pricing of most products was done based on supply and demand mechanism, and pricing in some goods was done by overcharge. Ministry of agriculture was responsible for determination price of some agricultural products and ministry of economy was responsible for determination the price of several industrial products in state. Therefore, an administration called prices checking administration was established in business unit of that time ministry of commerce and goods price estimation ministration in ministry of economy.

#### **2) 1973-1978 period**

One of important events in this period is unexpected increase of world oil price. Increasing state exchange rate by oil export make governors start injecting these incomes to national economy. This matter increases effective demand in society quickly as accountability to this extra demand led to quick price growth for lack of proper economic infrastructures. Therefore, government role is seen significant in pricing process of state in this period.

At the beginning of this period in 1973, studying prices was established depending on ministry of economy, the price of all industrial-mineral and exporting goods was calculated, and prices were deducted to pricing council for approval. This center joint to ministry of commerce in 1974 and took the responsibility of determination retail and services prices. One of the other actions to reduce prices was removal or reduction commercial profit for 216 good items. In addition, consumer protection fund didn't let increase subsidence to government. This fund changed to the o producers and consumers' supportive organization and its responsibility range extended more. In addition, prices investigation center was established in National Consultative Assembly (that time) in 1975.

#### **3) 1979-1989 period**

The dominated political conditions on society for revolution and imposed war on Iran in that period led to extensive pricing policy in state. Prices investigation center and producers and consumers supportive organization were combined as the first action in 1979 called producer and consumer supportive organization. These responsibilities include:

- 1) Determination importing good prices
- 2) Stabilization the domestic price of imported goods similar to those produced by paying differentials
- 3) Determination domestic productions prices and services
- 4) The loss payment of basic goods and foods
- 5) Supervision and tracking pricing
- 6) Collection statistics and publication rate statement
- 7) Conclusion and suggestion to analyze the total cost

Many services and goods were included in pricing in war period. Actually, this period can be known as extensive involvement of governments in prices mechanism.

#### **4) 1989-1994 period**

Time after war and beginning of the first development plan can be seen with economic liberalization programs as reduction in pricing policies by government; as though, included items in pricing reduced since 1989, and pricing gradual removal procedure of these items started. As a result, number of pricing included items reduced a lot at the beginning of 1992, and this procedure continued to the middle of 1994.

#### **5) 1994 so far**

Islamic council wanted to determine price of several basic goods for increase in general level of prices during 1991-1994. Moreover, important organizations were established with supervision on them for pricing such as supportive organization of market regulation program, organization of supervision on process, and governmental reprimand organization.

Supportive organization of market regulation program divided pricing goods to 3 groups. It issued the first group to producer and consumer supportive organization. The second group that was included guiding pricing was referred to ministry of industry, and non-included goods in pricing were in the third group.

Pricing procedure of the mentioned goods continued to the part of 1996. In late 1996, some included items in the second group were removed pricing by demand of minister of industry for their proper supply and demand. In addition, many of the first group items were removed from pricing.

### 1.1.2 Exclusive pricing

Pricing has an important role in economic activities. Actually, price is an ordinary quantity that indicates the value of good interaction against the other goods. Therefore, price has a specific status in theoretical economy science, particularly micro economy. Government usually reacts against prices increase and tries to prevent price increase or inflation in state by supervising or policy executing. According to some economists' ideas, government interruption in market mechanisms disorder prices and consequently prices won't be able to guide consumers, producers, and investors.

In contrary, what obvious is that pricing by government disrupts prices mechanisms in market and consequently prices won't show social real cost in competitive conditions. When there is just one producer for a product in market, that market has exclusive structure and monopolist plays determinant role in prices against competitive market. Monopolist tries to maximize the subordinated agency profit. Consequently, his production level will be determined where his final incomes and final cost are equal. Therefore, he determines prices in a way to reach maximum profit that necessitates government involvement in market by taxation and pricing (Archak et al., 2011).

Generally, the determined prices by market supply and demand mechanism were called economic prices. The gap among economic prices of each good and its final price is the profit which a society is ready to pay to its producer. Of course, a part of its difference is related to the opportunity costs (particularly capital opportunity). Moreover, government involvement in this mechanism is known rejected except executive state.

### 1.2 Background

Research background showed that financial analysts specifically consider company power to predict future profitability of business units (Datta et al., 2011). They showed that companies with high ability of receiving that is qualification power will have less pricing and profitability fluctuation with direct relations with stock. They showed that more power in company lead to less fluctuation in return of the relationship between power, stock, and more stable cash flow of company.

Kim & Singal (1993) studied financial supplement technics in China. They found that the relationship between market product power and financial supplement technics is significant. In addition, the results of their research showed that financial supplement in New Zealand are influenced by type of industry, firm size, and growth situations.

Taylor (2000) showed the direct relationship between market product power and market share in New Zealand firms. Montero (2009) proved the direct relationship between market product power and market power in Eastern Asian countries.

Nevo (2001) studied the relationship between exclusive pricing and the expected return. They showed that exclusive pricing conception has different meaning from the expected return and there is averagely a correlation between expected return, cash flow, cash flow growth, and financial leverage. Results showed the relationship between exclusive pricing and market risks on consumption, relationship between capital cost, growth, financial leverage, and risks, future predictions, power and features of debt cost relationship environment. He showed the positive and direct relationship between debt cost and relational power. Firms with more debt costs have more power than other firms. In addition, he showed that small size firms and the ones with high qualification have relationship between debt cost and effect of market power on power more than other firms.

Huang & Lee (2013) studied credit risk. They showed that product market power and credit risk depend on several active firms in each industry. In addition, they found that credit risk is function of firm size and power.

## 2. Materials and methods

### 2.1 Variables

Expected cost variable of exclusive pricing in this research is dependent variable and product market power is considered as independent variable. Moreover, operational cash flow, ratio of fixed assets, and firm size are control variable. Thus, research model is as following:

$$CEt = \beta_0 + \beta_1 CPt + \beta_2 SIZEt + \beta_3 LEVt + \beta_4 PPEt + \beta_5 CFOt + \lambda \quad (1)$$

Variables are defined as following:

$$CEt = \sqrt{(EPSt - tEPS)/Pt}$$

In which,

$CEt$  = exclusive price,

$EPSt$  = dividend in next year,

$tEPS$  = dividend in current year,

$Pt$  = stock price at the end of the first month of spring in current year

It must be notifying that if earnings per share in the next year are less than current year, it becomes negative under radical. Data with this condition is omitted from research.

(CP) = firm competitive power: it includes the ratio of gross profit to sales of each firm in each year

(SIZE): firm size: it includes natural logarithm of total assets of each firm in each year

(LEV): debt ratio: it includes sum of all long-term debts divided to total assets of each firm in each year.

(PPE): ration of fixed assets: it includes total fixed assets to total assets of each firm in each year.

(CFO): operational cash flow: it includes the ratio of operational cash flow to total assets of each firm in each year.

### 2.2 Statistical Population and sample

The studied statistical population in this research is listed companies in stock exchange in holding industries in 2016-2017 that is 14 observations. 5 firms were selected by simple random sampling method among statistical population from various industries.

### 3. Discussion and results

#### 3.1 Hypotheses Test:

Table (1) shows results of hypothesis test. This test is based on combined data. Moreover, effects of year and industry were considered as a constant effect in data analysis. Results of hypotheses show that significant level of competitive power in table (1) is 0.4%, it means less than 5%, therefore, there is significant relationship between independent variable, CP, and cost of equity. This relationship is negative. It means increasing CP reduces cost of equity. This matter emphasizes that business units can reduce cost of equity, operational cost such as product target price to survive in competitive market. Moreover, the sig. level of debt is zero and firm size is 0.17%, less than 5% in table (1). Therefore, there is significant relationship between debt ratio and firm size as control variable with cost of equity in 95% sig. level. However, there isn't a significant relationship between the ratio of operational cash flow and fixed assets with cost of equity. Results of research show that more increase in debt ratio lead to more increase in cost of equity. Moreover, firm size has negative relationship with cost of equity. In other words, bigger firms have less cost of equity.

Table 1. Hypotheses test

<i>Independent variables</i>	<i>Coefficients</i>	<i>T-value</i>	<i>Sig. level (P-value)</i>	<i>Variance inflation factor (VIF)</i>
Constant value	0.545	4.153	0.000	-
Product market power	-0.165	-2.902	0.004	1.445
Exclusive pricing	-0.614	4.520	0.000	1.45
Firm size	-0.024	-2.401	0.017	1.444
Ratio of fixed assets	-0.059	-0.771	0.441	1.923
Ratio of cash flow	-0.011	-0.128	0.898	1.372
F- value	3.629		0.00	
Moderated R <sup>2</sup> = 0.125	Durbin-Watson= 1.817 are inserted			
Effects of year ad year				

Dependent variable: exclusive pricing

### 4. Conclusion

Research evidences, results of hypotheses test, show this fact that CP factor, it means ratio of gross profit to sale, has reverse and negative relationship with cost of equity. In other words, more increase in CP of firm reduces cost of equity more. This matter emphasizes that business units can reduce operational costs such as final price of product to reduce cost of equity. Actually, one way to reduce cost of equity is to reduce operational cost. Moreover, firm size has negative relationship with cost of equity. In other words, bigger firm size lead to less cost of equity. This fact is for big firms have more share in market and consequently have more sale and higher competitive power than other firms which reduce cost of equity. These results are in agreement with research theoretical bases by Cotterill (1986).

This article emphasized on reverse relationship between competitive power and cost of equity in new arrival market such as Iran market. In other words, this research showed that competitiveness reduces cost of equity in financial resources supplement. This issue can be mentioned by supervising committee on managers' performance such as general assembly of main shareholders and stock holders. They can increase firms CP, productivity of human force and capital using efficient managers in order to reduce cost of equity finally. Therefore, it is suggested to CEOs and members of board of directors of listed firms in stock exchange to reduce operational costs such as product final price and increase productivity of human force and capital to improve firm competitive power (CP). This matter reduces business and financial risk. Moreover, it is recommended to financial analysts and other users of financial statements to include indirect relationship between CP and cost of equity in their predictions and analyses and cost of equity analyses. It is suggested to further researchers to study the effect of CP on debt cost and also on profit quality. The limitations of this research were inaccessibility to some effective variables in calculation CP such as industry and market structure.

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