



## Comparative study of the influence of different levels of industry concentration on financial indicators

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### Introduction

Industry concentration affects firms' various financial and operational aspects. This study aims at examining its effect on selected financial indexes including earning persistence, stock return, firm growth, and rate of profitability in Tehran stock exchange listed companies from 2012-2016. To measure industry concentration (as independent variable), Herfindahl index based on three factors, sales, assets and equity, was used. Based on this index, observations were classified in 5 groups in accordance with their combined scores. Results showed that industry concentration in its maximum level has a negative effect on earning persistence, while in its minimum level this effect is negative on stock return, and nonsense on other levels. Although a negative decreasing effect of industry concentration was documented on firm growth in all 5 levels, its weak positive significant effect on profitability was also recognized in higher than average levels of industry concentration.

### Hypotheses

The aim of the study is to examine the effect of industry

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concentration on selected financial indicators. Thus, research hypotheses were developed as follows:

**H1:** *There is a significant relationship between industry concentration and earning persistence in Tehran Stock Exchange listed companies.*

**H2:** *There is a significant relationship between industry concentration and stock return in Tehran Stock Exchange listed companies.*

**H3:** *There is a significant relationship between industry concentration and firm growth in Tehran Stock Exchange listed companies.*

**H4:** *There is a significant relationship between industry concentration and rate of profitability in Tehran Stock Exchange listed companies.*

### **Methods**

The data required for the research were gathered through existing data of Tehran Stock Exchange listed companies' financial statements. After adjusting the statistical population for the defined limitations according to research aims, 212 companies in 5 years, (1060 observation) remained in 11 industries. Firstly, to measure the research independent variable (industry concentration), Herfindahl index was used in three independent times based on firms' sales, total assets and equity, and each time according to a comparison of each firm with the industry average index, a score of 1 to 5 was allocated to the observation. "5" stands for maximum concentration and "1" for minimum concentration. Then the average of obtained scores was used to ultimately define the state of each firm's industry concentration level. Then 4 independent models were used according to the literature to test the study hypothesis.

### **Results**

The first hypothesis was supported suggesting that there is a significant level between industry concentration and earning persistence, increasing industry concentration, up to the 3rd level increasing the earning persistence (EP), but upper levels will cause EP to decrease.

The second hypothesis was also supported by the data. In first and second levels of industry concentration, a negative significant relation was confirmed, where increasing the industry concentration leads to decreasing of its effect on stock return.

Research data support the third hypothesis. In all 5 levels, industry concentration has a significant effect on firm growth and its negative decrease in upper levels gradually.

The fourth hypothesis was not supported. No significant effect was

observed between industry concentration and profitability in three top levels.

### **Discussion and Conclusion**

Different decisions about different investment options encourage rational investors to evaluate the company's various financial indicators. Since the product market competition can be effective in manager's financial and operational decisions, it affects the financial indicators. Therefore, it is important to understand how product market competition has an effect on financial indicators. The present study investigated the combined criteria of industry concentration on 4 financial indexes; including earning persistence, stock return, firm growth and profitability. Research hypotheses were test in 5 level of industry concentration. Results showed that proper interpretation and comparison of financial indicators by investors due to the competition in the industry is important. For example, the present study showed that an increase in industry concentration from Q1 level to Q3 will increase its positive effect on earnings persistence, but in its highest level, industry concentration (Q4 & Q5), has a negative effect on earnings persistence. In lower levels of industry concentration, its negative effect on stock return was documented. While its effect is negative and decreasing on firm growth, it has a positive effect on profitability in three top levels (Q3 to Q5). Thus, in interpreting the studied financial indexes, the state of competition in the industry is important. Therefore, none of the mentioned indicators should to be considered alone, without considering the level of industry concentration (competition).

**Keywords:** *Industry Concentration, Earnings Persistence, Stock Return, Profitability Ratio.*