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Monopolistic competition: Critical evaluation the theory of monopolistic competition with specific reference to the seminal 1977 paper by Dixit and Stiglitz

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## **Monopolistic competition: Critical evaluation the theory of monopolistic competition with specific reference to the seminal 1977 paper by Dixit and Stiglitz**

### **Abstract**

This paper revisits the D-S (Dixit-Stiglitz) model. It's a simple general monopolistic model with  $n$  monopolistic goods, and a numeraire good Labour ( $w = 1$ ); aggregation for all goods in the economy. We have considered in our paper constant elasticity of substitution case (CES). On the supply side, the assumption is that the labour is perfectly mobile factor of production across the sectors, so as a result in our model there is single wage rate which we denote as  $W$  in the other sectors than monopolistic there is constant returns to scale and we can specify the production function: The Dixit-Stiglitz model of monopolistic competition works only when  $n$  is large; from the functions of the productions best when one applies linear production function. Under increasing returns to scale monopolistic competition will lead to a greater degree of product differentiation than it is socially optimal.

Key words: Monopolistic competition, CES, Dixit-Stiglitz model, product differentiation

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## Introduction

The assignment should revisit the model of monopolistic competition build Dixit and Joseph Stiglitz .The basic model has been used to study optimum product diversity .It's a simple general monopolistic model with n monopolistic goods, and a numeraire good Labour ( $w = 1$ ) ; aggregation for all goods in the economy.

### Constant elasticity case\*

Then model simplifies economy on two sectors. The first sector produces a homogenous good under constant returns to scale and is perfect competition model and the second sector consists of a large group of monopolists who produce under increasing returns to scale. The utility function of household is represented homogenous quasi-concave\*

$$\max_{x_0, x_i} u = U(x_0, [\sum_{i=1}^n x_i^\rho]^{1/\rho})$$

$x_i$  Is the consumption of variety;  $\rho$  \* is **constant elasticity of substitution** inside the group of monopolistic goods  $i = 1, 2 \dots \dots, n$  or alternatively and utility is separable between  $x_0$  *numeraire* and  $x_i$  other commodities.

$$(2) (\int c(\rho)^\alpha dF)^\frac{1}{\alpha}, (1)$$

$C(\rho)$  is a consumption of good produced with productivity , and  $\rho \in ]0,1[$

The constant elasticity of substitution in this case is  $\frac{\alpha}{1-\alpha}$

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<sup>1 1</sup> Koeniger Winfried, Licandro IZA Omar European University Institute and FEDEA January 2004 ;Substitutability and Competition in the Dixit-Stiglitz Model\*  
see appendix point 1.2:  
see appendix 3.3