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(U)

. (1978, John, P. Dool, F. Orazem,)

$$tc = b_0 + b_1q + b_2q^2 + b_3q^3 + u$$

=Tc

() = Q1

= U

q^2

Q1

q^3

.(2003)

Multicollinearity

$$tc = 27671.916 + 566.7q - 2.577q^2 + 0.001q^3$$

(0.77) (1.45) (3.02)

$$R^2 = 0.67$$

$$R^2 \setminus = 0.63$$

$$F = 23.27$$

$$D.W = 1.48$$

D.W

Heteroscedasticity

(2004)

Generalized Differences

()

p^{\wedge}

-:

$$p^{\wedge} = 1-d / 2$$

$$X^*t = (Xt - p^{\wedge} Xt-1)$$

$$Y^*t = (Yt - p^{\wedge} Yt-1)$$

-:

$$tc = 18956.45 + 506.667q - 2.771q^2 + 0.004q^3$$

(2.812) (-2.913) (3.417)

$$R^2 = 0.71$$

$$R^2 \setminus = 0.69$$

$$F = 29.714$$

$$D.W = 1.91$$

(b3,b2,b1)

t

F 29.714

F

0.69 R²

%69

%31

Durbin-Watson

1.91 D.W

(Johnston 1972)

LRATC

(1999)

-:

$$LRATC = 506.667 - 2.771q + 0.004q^2$$

(1989)

Q

-:

$$LRATC = 506.667 - 2.771q + 0.004q^2$$

$$= - 2.771 + 0.004q$$

$$0.004q = 2.771$$

$$q = 693$$

693

(2004)

$$tc = b_0 + b_1q - b_2q^2 + b_3q^3 + b_4qA - b_5A^2$$

:

$$= qA$$

$$= A^2$$

-:

$$tc = 157439.502 + 438.457q - 2.804q^2 + 0.004q^3 - 5.758qA + 26.908A^2$$

(2.407) (-2.779) (3.345) (3.442) (3.242)

$$R^2 = 0.77$$

$$R^{12} = 0.74$$

$$F = 28.064$$

$$D.W = 1.96$$

: A

$$= - 5.758q + 53.816A$$

q

$$= - 3990.294 + 53.816A$$

$$53.816A = 3990.294$$

$$A = 74$$

$$74$$

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46	74	
166	693	

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Cyprinus carpio L.

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. 2008.

.1 , 13 ,

Barbus barbulus

.1989.

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.2004.

.2002 -2001

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(http://amjad68.jeeran.com)

. 2008.

.2003 .

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**ANALYTICAL STUDY TO ESTIMATE THE COST FUNCTIONS,
PRODUCTIVITY AND OPTIMAL SIZE OF THE FISH FARMS IN
THE PROVINCE OF BABYLON IN 2010.**

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ABSTRACT

The research aims to study the reality of the production costs of fish farms and determine the optimal size of production and determining the area of optimal and comparable in size and space achieved already. The results showed that the cost of seed, pesticides and labor Landlord constitute a large proportion is 20% each of total variable costs total, followed by feed, accounting for 14% of the total variable costs total wages of irrigation, followed by treatment for each of them 10% from the total variable costs and transportation costs, accounting for 6% of the total variable costs of changing the college. Also, farmers do not achieve the optimal size of production 693 tons and must work to enable farmers to achieve sizes best-efficient by increasing the size of cultivated areas towards the areas best reached by the study, of 74 donm and through mergers or subscribe to or rent among farmers.