ESTIMATING FACTORS AFFECTING WHEAT MARKETING EFFICIENCY USING TOBIT MODEL

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ABSTRACT

This study was aimed to measure marketing efficiency and study important factors affecting , using TOBIT qualitative response model for wheat crop in Salahalddin province. Results revealed that independent factors such as (marketing type, crops duration in the field, average marketing cost, distance between farm and marketing center, and average productivity) had an impact on wheat marketing efficiency. This impact varied in size and direction due to value of parameters. Values of marketing efficiency fluctuated within cities and towns in the province. The average value on the province level was 76.75%. This study was recommended developing marketing infrastructures which is essential to efficiency increases. In addition, it is important to decrease routine administrative procedures in governmental marketing institutions and establish marketing centers, even if they will be temporary, in harvesting and marketing period near the production areas.

تقدير العوامل المؤثرة في كفاءة تسويق محصول القمح بإستعمال نموذج التوبت

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المستخلص

يهدف البحث الى قياس الكفاءة التسويقية ودراسة اهم العوامل المؤثرة فيها باستخدام نموذج الاستجابة النوعية TOBIT , اذ تبين من تقدير الانموذج ان العوامل المستقلة (نوع التسويق و مدة بقاء المحصول في الحقل ومتوسط التكاليف التسويقية و المسافة بين المزرعة والمركز التسويقي و متوسط الانتاجية لأنها تعد حلقة ربط مهمة بين الانتاج و المساحة فهي ناتج قسمة الانتاج على المساحة , و متوسط الكلفة الانتاجية بأعتبارها عامل مهم مؤثر و سبب رئيس لاختلاف قيمة الكفاءة التسويقية ضمن المنطقة الواحدة) لها تأثير في الكفاءة التسويقية واختلف حجم واتجاه التأثير لكل عامل حسب قيمة المعلمة المقدرة للمعامل , وان الكفاءة التسويقية قد تذبذبت مابين مناطق الانتاج في الاقضية و النواحي لمحافظة صلاح الدين, وقد كان متوسط الكفاءة التسويقية على مستوى المحافظة   76.65% , واوصت الدراسة بضرورة الاهتمام بتطوير البنى التحتية لما تسهم في رفع كفاءة العملية التسويقية, و ضرورة الاهتمام بتخفيف الاجراءات الادارية داخل المؤسسات التسويقية الحكومية والعمل على انشاء مراكز تسويقية حتى لو كانت مؤقتة في فترة الحصاد و التسويق بالقرب من مناطق الانتاج.

INTRODUCTION

Agricultural marketing is extremely important for the agricultural producer since agricultural activities are usually influenced by various environmental conditions which leads to fluctuations in production and price (11). Marketing should be defined as the step that is before production process. Thus, concept of marketing should refer to producing what is supposed to be marketed, and not the opposite as old definition explained (3). Efficiency of agricultural marketing can be defined as that level at which optimal use of inputs of the marketing process which results in the greatest satisfaction of the consumer and to those working in the marketing functions in the marketing system in a specific place and time (4). Studying marketing efficiency is a significant measure used to indicate performance of marketing institutions or those in the marketing process (23). One of the main goals of any research is to analyze relationship between many variables in order to find a specific formula that describes this relationship between the variables of all kinds (18). Wheat crop has an economic importance in term of production and consumption and has a clear effect on the Iraqi trade balance as Iraq imports large quantities of wheat to meet the local demand(1). The research focuses on the weakness of marketing system for cereal crops as the marketing of cereal crops suffers from many issues affecting the efficiency of the marketing system that pushed many producers to sell their production in the local market, since they only get a small amount of the price given by the government. The importance of the research comes from the marketing operations that take place on the wheat crop, which was reflected on the costs and efficiency of marketing operations that can increase profits without increasing production. Also, government agencies interested in this subject because of the importance of the wheat crop, which represents an important part of the agricultural producer budget. This research lays on assumptions, including that the farmers of the crop in this study suffer from problems due to administrative procedures in marketing institutions that make them sell their production directly to the market at low prices, which affects the marketed quantity and the profits they obtain and leads to low marketing efficiency. Furthermore, the research assumes the presence of various factors that affect the efficiency of the marketing process including (years of experience, quality of transportation roads, educational level, and distance to marketing centers). This research was aimed to evaluate the marketing efficiency, and to study the most important factors influencing it by using the qualitative response models LOGIT, PROBIT, and TOBIT. Many researchers were interested in the marketing of the wheat crop and grain from them (2, 5, 8, 22) considering it as an important and complementary step to the production process of the crop .There is a close relationship between the marketing costs that paid by the farmers and the marketing institutions and the degree of marketing efficiency in the various societies (13). Marketing efficiency is one of the most important economic measures used to indicate market performance as well as improving efficiency. Marketing is a common goal for producers, consumers and establishment marketing food commodities and for society in general (7).

MATERIALS AND METHODS

To measure the efficiency of marketing system for wheat crop , can using comparisons of mathematical relationship (4 , 21) .

Marketing efficiency

$$100 - \left(\frac{Marketing\ cost}{Total\ cost\ of\ marketed\ goods}\right) \times 100$$

The marketing costs that are paid by the farmer, as well as the intermediaries and the production costs will be the base of calculating the percentage of marketing efficiency (14). The use of the equation has been used because the mathematical model used in estimating the marketing efficiency of each farmer and marketer of wheat crop takes into account the effect of production efficiency on marketing efficiency, so the efficient product will be affected by this efficiency, which explains the difference in the values of marketing efficiency within the district or the same region despite the convergence in average marketing costs, as well as it is the most appropriate method according to the available marketing data, many researches mentioned that this method is the most suitable one in the case of marketing cereal crops to government

agencies (25). To study required data were obtained to achieve the objectives of the study from its primary sources represented by a questionnaire form designed to include the following stages: production, marketing and marketing institutions. 147 questionnaires were collected from wheat farmers in Salahalddin province. The secondary data were obtained from the relevant authorities represented by the Ministry of Agriculture and the Ministry of Planning and the Ministry of Commerce and related authorities.

RESULTS AND DISCUSSION

The results in Table 1 show that the average marketing efficiency differed between the districts and the productive and marketed areas of the crop in Salahalddin province, as the average marketing efficiency was (73.29, 81.48, 82.56, 78.60, 76.92, 77.07, 70.8, 77.12, 72.79, 76.61, 77.36) for Al- Dujayl district and Al- Dujayl area behind the security fence, Balad, Samarra, TuzKhurmatu, Ishaqi, Al Dur, Tikrit, Baiji, Al Alam and Sharqat respectively. This differences due to many factors that directly or indirectly affected the marketing efficiency, including distances from marketing centers, the quality of transportation means, as well as the costs of loading and cleaning the crop. The Table reveal that the marketing efficiency differed within Al-Dujayl district, as the production areas located behind the boundary of Baghdad province had a highest average efficiency (81.48%), while the production areas within the boundary had an average efficiency (73.29%). One of the reasons for this difference in the average marketing efficiency is that production areas outside the boundary were included in the marketing of wheat crops to nearby centers in Anbar province, as well as a temporary marketing complex was established in Karma area to market the production of these areas. While, in the AL-Dujayl district areas inside the boundary, the production was marketed to Silo Baiji complex, which is far Approximately 200 km from the production areas. The average marketing efficiency fluctuated between the districts and sub-districts within the province, which reached the highest average efficiency in the district of Balad at (82.56%), and it can be attributed to a decrease in the cost of some marketing operations performed on the crop, including the low costs of transportation due to the availability of paved roads and the availability of transportation and means of loading in addition to the of the marketing center, as the marketing was carried out to the Silo Samarra complex near the district. The lowest average marketing efficiency was in Baiji district at (72.79%). This decrease could be attributed to the lack of large transportation means, as well as that the production took place in the distant areas of the aljazera area which is characterized as an unstable area of security which lead to an increase in the costs of conducting jobs and marketing activities. This fluctuation in the value of marketing efficiency between the districts and the producing and marketing areas of the crop in the province is due to many reasons and factors that directly and indirectly affect marketing efficiency, including the extent of availability and proximity of marketing centers to production areas and the quality of the methods available in each Region and type of marketing method used , whether is it collective or individual. Also, the period of delivery of the crop, as the delay in receiving the Silo has charged marketing expenses to the farmer who marketed the crop without being matched by any change in the benefits from marketing the crop, as well as the duration of the crop remaining in the field as it raise the loss percentage during the marketing process, That caused as a result wheat being affected by insects and birds, as well as the loss during the cleaning and loading operations of the crop and that depends on the type of loading method, whether it is manual (workers) or through the machines (wheel loader) and to perform the cleaning function of the crop from remnants of hay and casing for grains and from all field waste, whether stones or strange pieces found as a result of the harvesting process or the transport process inside the farm as well as from the process of unloading and collecting the crop inside the field to carry out various operations before the final loading and marketing to silos and the store complexes, as well as the availability of large transportation means within the districts and the means of loading within the production areas. All these factors led to difference the marketing

efficiency within the districts, sub-districts, and production areas. After measuring the marketing efficiency ratio of the marketers of the wheat crop, it is clear from the observation of Table 1. that the ratio of marketing efficiency that the average of each district can be considered low and this is due to a fundamental reason that the farmer how marketing the crop did not perform large and clear marketing functions. The transport function, and in some farms, the cleaning of the crop inside the field, and that this loss in marketing efficiency came as a result of additional marketing costs paid by the marketer without leading to an increase in the value of the commodity or increasing the benefits arising from its marketing, including the average cost of delaying receipt of receivables from marketing the crop for silos the average delivery costs of the crop, the average cost of unloading, and other expenses that were not matched by obtaining greater benefits from the marketing of the crop.

Table 1. Marketing efficiency of the farmers of the marketed wheat crop for government complexes and silos in Salah al-Din Governorate

Farm	District	Marketing Efficiency %	Farm	District	Marketing Efficiency %	Farm	District	Marketing Efficiency %
1	Dujayl	67.12	51	Balad	85.53	101	Dur	72.02
2	Dujayl	65.73	52	Balad	83.12	102	Dur	74.70
3	Dujayl	77.88	53	Balad	85.96	103	Dur	78.14
4	Dujayl	74.38	54	Tuzkurmatu	86.23	104	Dur	74.78
5	Dujayl	72.69	55	Tuzkurmatu	74.86	105	Dur	79.76
6	Dujayl	65.23	56	Tuzkurmatu	79.87	106	Dur	78.10
7	Dujayl	73.02	57	Tuzkurmatu	82.82	107	Dur	76.03
8	Dujayl	78.34	58	Tuzkurmatu	68.27	108	Tikrit	81.92
9	Dujayl	76.52	59	Tuzkurmatu	69.52	109	Tikrit	83.58
10	Dujayl	73.25	60	Samaraa	80.74	110	Tikrit	83.83
11	Dujayl	68.17	61	Samaraa	89.49	111	Tikrit	83.25
12	Dujayl	78.76	62	Samaraa	75.99	112	Tikrit	67.65
13	Dujayl	79.23	63	Samaraa	71.00	113	Tikrit	77.80
14	Dujayl	77.65	64	Samaraa	77.89	114	Tikrit	75.93
15	Dujayl	78.81	65	Samaraa	77.22	115	Tikrit	80.43
16	Dujayl	68.23	66	Samaraa	78.00	116	Tikrit	80.19
17	Dujayl	73.5	67	Samaraa	72.51	117	Tikrit	73.63
18	Dujayl	70.12	68	Samaraa	76.43	118	Tikrit	70.28
19	Dujayl	77.45	69	Samaraa	86.30	119	Tikrit	66.95
20	Dujayl	68.77	70	Samaraa	79.87	120	Baiji	70.23
21	Dujayl	76	71	Samaraa	69.52	121	Baiji	78.95
22	Dujayl	76.43	72	Samaraa	83.77	122	Baiji	72.89
23	Dujayl	73	73	Samaraa	79.45	123	Baiji	78.07
24	Dujayl	73.24	74	Samaraa	82.74	124	Baiji	74.86
25	Dujayl	75.28	75	Samaraa	83.69	125	Baiji	73.38
26	Dujayl	71.27	76	Samaraa	78.98	126	Baiji	72.89
27	Dujayl	74.3	77	Samaraa	77.49	127	Baiji	70.23
28	Dujayl	73.7	78	Samaraa	82.82	128	Baiji	74.86
29	Dujayl	68.23	79	Samaraa	82.32	129	Baiji	73.30
30	Dujayl	73.31	80	Samaraa	81.24	130	Baiji	66.95
31	Dujayl	71.05	81	Samaraa	78.73	131	Baiji	66.95
32	Dujayl	73.35	82	Samaraa	76.21	132	Alam	74.43
33	Dujayl	70.64	83	Samaraa	75.62	133	Alam	79.76
34	Dujayl	71.92	84	Samaraa	69.03	134	Alam	74.70
35	Dujayl	78.26	85	Samaraa	71.81	135	Alam	76.03
36	Dujayl	77.45	86	Samaraa	80.13	136	Alam	78.14
37	Dujayl	81.08	87	Samaraa	86.23	136	Alam	79.76
38	Dujayl	81.27	88	Samaraa	74.34	137	Alam	72.02
39	Dujayl	80.76	89	Isahqi	68.78	138	Alam	76.27
40	Dujayl	83.25	90	Isahqi	78.56	139	Alam	78.46
41	Dujayl	84.44	91	Isahqi	77.34	140	Sharqat	74.86
42	Dujayl	82.11	92	Isahqi	76.18	141	Sharqat	79.45
43	Balad	81.22	93	Isahqi	81.88	142	Sharqat	78.73
44	Balad	84.54	94	Isahqi	79.70	143	Sharqat	76.21
45	Balad	83.42	95	Isahqi	73.35	144	Sharqat	77.22
46	Balad	81.32	96	Isahqi	78.46	145	Sharqat	82.82
47	Balad	84.17	97	Isahqi	80.27	146	Sharqat	71.00
48	Balad	83.18	98	Isahqi	76.27	147	Sharqat	75.99
49	Balad	72.62	99	Dur	76.81			
50	Balad	83.07	100	Dur	74.43		Average	(76.65)

Source: Done by the researcher based on the questionnaire and mathematical formula

The differences in the value of marketing efficiency were within the district or the individual production area as revealed in the table, this can be due to a number of different factors that differ from marketed farms to another, including some factors that affect the social and health reality of farmers and their families, including the extent availability of drinking water sources, as well as the availability of health centers and schools. These factors indirectly affect the production improvement and marketing efficiency by improving the management performance of the farm and the consequent improvement in the performance of various marketing activities. The difference in age of marketing farmer and the extent of their experience in cultivating and marketing the wheat crop affects greatly, directly or indirectly, but the most important is the effect of these factors, as well as educational qualifications has an effect on improving the development of the use of farm assets and the use of modern methods to improve production and marketing efficiency through the ability to deal with available resources, good exploitation in production and marketing and the ability to translate and transfer the latest developments in the crop production more efficiently and thus affect production efficiency, which directly and significantly affects marketing efficiency, using modern means of fertilizers and seeds before planting improves the qualities of the seeds produced on the farm and reduces their fungal and insect infestation, and thus improves the marketing efficiency of the crop. all these different factors, whether quantitative or qualitative, have an effect on marketing efficiency, but the amount of impact varies according to the nature of each factor and the direct and indirect effect on marketing efficiency, so the quantitative method was used in the analysis by estimating the qualitative response function Tobit to estimate the value and nature of the impact of each different factor on marketing efficiency. Some studies are similar to the study in the use of qualitative response models, such as (9,10,16).

Estimating the tobit model
Mathematical model clarify the nature of the relationship between the independent variables and the dependent variable, including

determining the variables, type (15) and the theoretical preconceptions about the signal and volume of their transactions among these variables:

Marketing efficiency: Qualitative dependent factors take values between 0 and 1 , while in Tobit model takes continuous values.

Marketing type: Descriptive qualitative variable, taking the values between 0 and 1, 0 in the case of individual marketing, and 1 in the case of collective marketing. Initial expectations about the nature of his relationship with marketing competence are positive, that is, by using group marketing, the marketing efficiency increases, and vice versa in case of individual marketing use.

Period of stay of the crop in the field: Quantitative explanatory variable, measured by the number of days for the crop to remain in the field, has an inverse relationship with the marketing efficiency. This type depends on the duration of the crop remaining in the field until the performance of the marketing functions for a certain period.

Average production costs (AC): A quantitative explanatory variable, measured in dinars / ton, has an inverse relationship with marketing efficiency, as an increase in average production costs leads to a decrease in the value of marketing efficiency according to the mathematical formula used in calculating marketing efficiency.

Average marketing costs (A.M.C): A quantitative explanatory variable measured in dinars / ton, this relationship is an inverse relationship with the marketing efficiency, so increasing the average marketing costs leads to a decrease in the value of marketing efficiency.

Distance: a quantitative explanatory variable, measured in kilometers between the farm and the silo, the theoretical preconceptions about the nature of the relationship between it and the marketing efficiency, which is an inverse relationship, so the greater the distance, the lower the marketing efficiency.

Productivity: Quantitative explanatory variable measured in kg / donum, the relationship is with the marketing efficiency depends on the extent of the dividing production by area, and average production cost as it an important factor influencing and a

major reason for the difference in value Marketing efficiency within the same region on the efficiency of marketing the wheat crop 50% and the farms higher than that remained continuous values and by using the ML method and using the Eviews 9 program, the Tobit model was estimated to find out the effect of independent variables factors (marketing type,and the duration of the crop). farmer's ability to deal with the increase in production that leads to higher productivity when the area is fixed in relation to the crop in terms of performing the marketing functions that are performed on the crop. The Tobit model comed be illustrate the effect and value of the variables on the marketing efficiency of the crop. As the Tobit model was estimated to explain the effect of some qualitative factors that affect the level of marketing efficiency of the wheat crop, as it is considered from the qualitative response models that are used due to the nature of the dependent variable i.e.

when it is qualitative, and the Tobit Censored Truncated Regression, (T.C.T.R) method was used as the dependent variable was expressed as zero (state of marketing inefficiency) in the case of the farms that achieved marketing efficiency less than staying in the field, the average marketing costs, the distance between the farm and the marketing center, and the average productivity because it is an important link between production and area, as it is the product. The model is used to find out the effect of explanatory factors on the levels of marketing competence, in the case of the variables with negative sign, it means the existence of an inverse relationship between the explanatory factor and the level of marketing competence and vice versa, as the parameters of the Tobit model were estimated using the ML method and the Eviews 9 program. Table 2 reveals the results of the assessment of the model.

Table 2. Tobit Model Estimate

Dependent Variable: MARKETING_EFFICIENCY
Method: ML – Censored Normal (TOBIT) (Newton-Raphson / Marquardt steps)
Date: 02/10/21   Time: 09:22
Sample: 1 147
Included observations: 147
Left censoring (value) at zero
Convergence achieved after 4 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
MARKETING_TYPE	0.023561	0.005621	4.191486	0.0000
PERIOD_OF_STAY	0.001720	0.000610	2.817818	0.0048
AC	-1.09E-06	3.41E-08	-31.91967	0.0000
AMC	-3.86E-06	1.02E-07	-37.74281	0.0000
DISTANCE	-1.20E-05	1.48E-05	-0.815812	0.4146
PRODUCTIVITY	0.007718	0.006097	1.265823	0.2056
C	0.784939	0.009431	83.23364	0.0000

Error Distribution				
SCALE:C(8)	0.013138	0.000766	17.14643	0.0000

Mean dependent var	0.775812	S.D. dependent var	0.048750
S.E. of regression	0.013511	Akaike info criterion	-5.717710
Sum squared resid	0.025375	Schwarz criterion	-5.554965
Log likelihood	428.2517	Hannan-Quinn criter.	-5.651585
Avg. log likelihood	2.913277		

Left censored obs	0	Right censored obs	0
Uncensored obs	147	Total obs	147

Source:. According to Eviews9 program

Results in Table 2 reveal the evaluation of the marketing efficiency function, the most important variables affecting the marketing efficiency of the wheat crop can be interpreted as follows:

Marketing type: Qualitative explanatory variable, when gives a positive signal in agreement with the economic logic and prior expectations about the parameter's signal for the variable, since by using group marketing,

the probability of marketing efficiency increases by 0.024 with the others factors estimated in the model constant, and the results of the Z test showed that the explanatory variable is significant at the level of the significance of 1 %.

Period of the crop stay in the field: A quantitative explanatory variable, when it gives a positive signal, it means that the variable has a positive effect, since by increasing the period of survival of the crop in

the field by one unit, it is possible that the probability of marketing efficiency increases by 0.0017 with the stability of the rest of the estimated factors, and it is possible that this positive effect will come through that The farmer will have the ability to perform marketing functions that increase the value of the marketed good better, such as cleaning, reducing the moisture content, removing hay, or performing the screening process of the crop before marketing, and the results of the Z-test showed that the explanatory variable is significant at a significant level of 1%.

Average production costs (AC): Quantitative explanatory variable when it shows a negative sign consistent with the economic logic, that is, by increasing the average marketing costs by one unit, the probability of marketing efficiency decreases by -0.00000109, with the remaining factors estimated in the model constant, and the results of the Z-test showed that the explanatory variable is significant at the level of significance of 1%.

Average Marketing Costs (A.M.C): Quantitative explanatory variable, when it gives a negative sign consistent with economic logic, that is, by increasing marketing costs by one unit, the probability of marketing efficiency decreases by 0.00000386, with the rest of the estimated factors remaining constant in the model, as the marketing costs are a basic determinant in the amount of marketing efficiency of the crop. Z-test results: The explanatory variable is significant at 1% level of significance.

The distance between the farm and the Silo: Quantitative explanatory variable, when it gives a negative sign consistent with the economic and technical logic and explains the inverse relationship between the variable and the marketing efficiency, meaning that by increasing the distance by one km, the probability of marketing efficiency decreases by -0.000012 with the rest of the factors estimated in the model constant, and the explanatory variable is not significant at the level of 5% significance, meaning that it has no statistical significance, although this variable determines the transportation cost and the amount of losses and wastes, and thus this is reflected in the marketing efficiency.

Productivity: Quantitative explanatory variable, when it gives a positive signal, that means while increasing productivity by one unit, the probability of marketing efficiency increases by 0.007, with the remaining factors estimated in the model constant, which is by increasing productivity as a result of increasing production, it gives a greater opportunity to the marketed farmer to improve his performance of marketing functions and taking higher advantage of large-scale production, and the explanatory variable did not significant at the level of 5% significance, meaning that did not statistical significance. It is obvious from the Tobit model estimation of the most important explanatory variables affecting marketing efficiency that the independent variable that mainly influencing the likelihood of marketing efficiency is the type and method of marketing and its parameter peaked at 0.02, then productivity and its parameter came by 0.007, then the period of remaining of the crop in the field and its parameter amounted 0.0012. Then the distance between the farm and the Silo, and the value of his parameter came in the amount of -0.0000120, then the average production costs was - 0.0000109, then the average marketing costs was -0.00000386. The estimated parameters of the variables, both quantitative and qualitative, were estimated in the model.

Statistics wald test
The wald test was used to test the parameters significance of the independent variables of the Tobit model as a whole (6) by testing the null hypothesis H_0, which states (that the parameters of the independent variables X, s of Tobit regression model are equal to zero) and as follows:

$$H_0 = b_1 = b_2 = b_3 = b_4 = b_5 = b_6 = 0$$

Results in Table 3 show the wald statistic test that follows the distribution of χ^2 at the degree of freedom of df =6 and showed the coefficients of the independent variables of the Tobit model as a whole (0.000 <0.05). The distance between the farm and the marketing center, average productivity and average production cost) included in the model has a significant effect (it has a statistical significance) on the probability of the binary dependent variable (marketing efficiency).

Therefore the null hypothesis H0 was rejected, which indicates that the parameters of the explanatory variables of the Tobit model are equal to zero (17). Also the low values of Akaika, Schwarz and Hannan-Quinn indicated the quality of the estimated model and the importance of the studied variables.

Table 3. Wald Statistic Test for Tobit Model parameters

Wald Test:
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	310.5179	(6, 139)	0.0000
Chi-square	1863.107	6	0.0000

Null Hypothesis: C(1)=0, C(2)=0, C(3)=0, C(4)=0,
   C(5)=0,C(6)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(1)	0.023561	0.005621
C(2)	0.001720	0.000610
C(3)	1.09E-06	3.41E-08
C(4)	-3.86E-06	1.02E-07
C(5)	-1.20E-05	1.48E-05
C(6)	-0.007718	0.006097

Restrictions are linear in coefficients.

Source:. According to Eviews program.

The research was concluded that the average marketing efficiency of marketing the crop is high due to the lack of marketing operations that take place when marketing the crop from fields to silos, and that the availability of some social services such as schools, hospitals and services in relation to the infrastructure has an important effect in improving the marketing efficiency of the crop. There are some different factors, whether qualitative or quantitative, that directly affect the marketing efficiency of the crop, and the study recommended the need to pay attention to developing the infrastructure which contributes in raising the efficiency of the marketing process and work to improve the factors with a positive impact and reduce the role of negative impact factors in the crop marketing efficiency, and the need to pay attention to easing administrative procedures within government marketing institutions and to work to establish marketing centers even if they are temporary during the harvest and marketing period near the production areas.

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