Marketing efficiency of the tomato crop in Iraq for the year 2020 (Salah al-Din Governorate as a model and application)

ABSTRACT

The tomato crop is one of the most important daily consumer food crops that enters the consumer basket and its importance called for necessity. Study it through a random sample consisting of (145) questionnaires, of which (75) are intended for farmers and (35) are designated for each of the wholesalers and (35) for retailers in the governorate Salah al-Din, and it is necessary to refer to the average number of dunams planted with the crop for the research sample (5.2) dunams, as the production of one dunam amounted to an average of (4.8) tons / dunam, and the average prices of the crop for the producer, wholesaler and retailer amounted to (382-504.4-701.7) dinars/ kg, respectively, the average absolute marketing margin between wholesaler - producer, retailer - wholesaler, retailer - producer amounted to (81.86 - 197.3 - 319) dina / kg, respectively, while the relative marketing margin between wholesaler - farms, wholesaler - The retailer, the retailer-farmer (producer) amounted to (19.50%, 26.11%, 42.37%) respectively, and the profits of the retailer from the absolute marketing margin ranked first, while the profits of the wholesaler ranked second, and the marketing efficiency was measured, amounting to The average marketing efficiency according to the three laws of scale (1) amounted to (59.93%), For scale (2) it reached (65.41 %, 43.95%, 32.66%), and for scale (3) it reached (63.16%), it was concluded that it is low when compared with the marketing systems of the rest of the world. (319) dinars, while the profits of the wholesaler from the marketing margin averaged (197.3) dinars. The reason for this is attributed to the ability of the retailer to bargain without providing marketing services. There is scarcity and shortage in wholesale markets, and this in turn leads to many wholesalers monopolizing the crop and selling it at prices that suit them, as well as the necessity for the owners of wholesale offices to perform the necessary marketing functions (sorting, grading, classifying and packing) This study recommended opening new outlets for wholesale sales and expanding wholesale offices, as the study showed that there is a scarcity and shortage in wholesale markets, and this in turn leads to many wholesalers monopolizing the crop and selling it at prices that suit them

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INTRODUCTION

The tomato is one of the important and necessary crops, and it is a good source of income for farmers from the various groups of society for this crop and the importance of this crop in terms of food and marketing and its connection to the family’s daily basket and because it is one of the crops that generates a rewarding income for the farmer and because there are many marketing problems that prevent the crop from reaching the consumer in the form and price that it Satisfies his desires, as the high marketing margin due to the high marketing costs, called for the necessity to study the most important marketing episodes that the crop passes through from the stage of harvesting to the final consumer. A specific market and its end by a marketing facility or agency, or

KEY WORDS: Marketing efficiency, marketing margin, tomato crop marketing efficiency

ARTICLE HISTORY:

Received: 02/02/2022
Accepted: 22/02/2022
Available online: 30/6/2022

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it is the difference between the price at which the product is sold (the farm gate price) and the price at which the consumer buys (Al-Shammari, 2002, 58), and thus consumers face two types of prices: the price of the farm and the price of marketing margins and these prices It reflects the production costs of agricultural products and the costs of marketing services, and also reflects consumers' desires for these products (Al-Hadithi, 1993, 267.)

**Research importance:**

The importance of the research lies in the importance of the studied crop and the importance of the study to find out the low marketing margins and the marketing efficiency to know the services added to the farm gate price or not.

**Research problem:**

The research problem lies in the high marketing costs of the crop, the low marketing margin and the marketing efficiency of the studied crop due to weak government support, which makes the crop production cycle high due to the high prices of labor, fertilizers, pesticides, seeds and plastic covers, which makes the cost prices high, which makes the price of the farm door high compared to the prices of imported crops.

**Research goal:**

1. Studying the marketing margins and the share of the producer, wholesaler and retailer from the distribution of consumer dinars to judge the efficiency of marketing performance.
2. Calculating the marketing efficiency and knowing the level of efficiency for each of the producers, intermediaries, singular and wholesale traders and retailers.

**Research Hypothesis:**

1. Low marketing efficiency The reason is due to low marketing costs compared to productivity costs. 2. Low marketing margins added to farm products so that no operations are conducted on the farm door crop.

Estimating the marketing margins between the different marketing stages of the studied tomato crop in Salah El-Din Governorate. The marketing margin is defined as the difference between the price paid by the consumer and the price charged by the farmer (the producer). (Thamer, 2013, 45), expresses the marketing margins either in an absolute value, which represents the difference between the buying and selling prices in two different stages known as monetary units, or in relative value (Percentile) It is the difference between the absolute margin divided by the selling price and multiplied by

*100. (Al-Tarwana, 2010, 76).

1. The marketing margin between the stages of the wholesaler and the farmer (producer): as shown in Table (1), the absolute marketing margin between the stages of the wholesaler and the producer, the average amounted to (81.8) dinars / kg during the study period, while the marketing margin in percentage at this stage of the crop was: The average was (19.50%) during the study period. It was calculated using the following mathematical formula:

\[
\text{Absolute marketing margin between wholesale and product prices (1) = wholesale price - product price. Absolute marketing margin between wholesale and product prices for the month of May = 504.4 - 382 = 112.4}
\]

\[
\text{Absolute marketing margin between wholesale and product prices for the month of June = 310 - 250 = 60.}
\]

\[
\text{The absolute marketing margin between the wholesale and product prices for the month of July = 433.2 - 360 = 73.2}
\]

\[
\text{Wholesale price - product price. Relative marketing margin between wholesale price and product}
\]

\[
\frac{\text{wholesale price - product price}}{\text{wholesale price}} * 100 = \frac{112.4}{770} * 100 = 22.28\%
\]

The relative marketing margin between the wholesale price and the product for the month of May
The relative marketing margin between the wholesale price and the product for the month of June
\[
\frac{\text{wholesale price} - \text{product}}{\text{wholesale price}} \times 100
\]
\[
= \frac{60}{310} \times 100 = 19.35\%
\]

Marketing margins are low, and the reason is due to the lack of services on the farm's gate production.

2- Marketing margin between the retailer and wholesaler stages:

With regard to the absolute marketing margin between the stages of the retailer and the wholesaler, the average amounted to (197.2) dinars / kg, as for the marketing margin in percentage at this stage for the tomato crop, the average amounted to about (26.10%) and it was calculated through the following mathematical formula:

The absolute marketing margin between the retail and wholesale prices (3) = the retail price - the wholesale price

The absolute marketing margin between the retail and wholesale prices for the month of May
\[
= 1105 - 770 = 335
\]

The absolute marketing margin between the retail and wholesale prices for the month of June
\[
= 375 - 310 = 65
\]

The absolute marketing margin between Retail and wholesale prices for the month of July
\[
= 625 - 433.2 = 191.8
\]

The relative marketing margin between the retail and wholesale price for the month of May (Al-Tarwana, 2010, 37).
\[
\frac{\text{retail price} - \text{wholesale price}}{\text{wholesale price}} \times 100 = \frac{335}{1105} \times 100 = 30.32\%
\]

The relative marketing margin between the retail and wholesale price for the month of June
\[
= \frac{65}{375} \times 100 = 17.33\%
\]

The relative marketing margin between the trial and wholesale price for the month of July
\[
= \frac{191.8}{625} \times 100 = 30.69\%
\]

Low relative marketing margin for lack of added services to the wholesaler on the farm door crop

3- Marketing margin between the retailer and producer stages:

With regard to the absolute marketing margin for three months (May, June, July) between the retailer and producer stages, it averaged

It has (319.3) dinars / kg. As for the marketing margin in percentage at this stage for the tomato crop, the average has reached the retail price - the price of the product. The relative marketing margin between the retail price and the product (6) = - 100 x retail price

(42.37%) 

Table (1) shows the marketing margin, and it was calculated using the following mathematical formula:
The absolute marketing margin between the retail and product prices (5) = the retail price - the product price The absolute marketing margin between the retail and product prices for the month of May = 1105 - 537 = 568

The absolute marketing margin between the retail and product prices for the month of June = 375 - 250 = 125

The absolute marketing margin between Retail and product prices for the month of July = 625 – 360 = 265

The relative marketing margin between the retail price and the product for the month of May = \( \frac{568}{1105} \times 100 = 51.40\% \)

The relative marketing margin between the retail price and the product for the month of June = \( \frac{125}{375} \times 100 = 33.33\% \)

The relative marketing margin between the retail price and the product for the month of July = \( \frac{265}{625} \times 100 = 42.4\% \)

Low relative marketing margin for lack of added services for the retailer on the farm door crop

Table (1): Marketing margins between the different marketing stages of the tomato crop in Salah El-Din Governorate for the agricultural season

| Tomato crop for months | Marketing margin sentence - Product | Marketing margin fragmentation - sentence | Marketing margin segmentation - product |
|------------------------|-------------------------------------|------------------------------------------|----------------------------------------|
|                        | absolute | relative% | Absolute | relative% | absolute | relative% |
| May                    | 112.4    | 22.28     | 335      | 30.32     | 568      | 51.4      |
| June                   | 60       | 19.35     | 65       | 17.33     | 125      | 33.33     |
| July                   | 73.2     | 16.89     | 191.8    | 30.69     | 265      | 42.4      |
| Average                | 81.86    | 19.50     | 197.3    | 26.11     | 319      | 42.37     |

Source: Prepared by the researcher based on the questionnaire.

Wholesaler and Retailer Profits:

We can now obtain the profits of each of the farmer (the producer), the wholesaler and the retailer through the following mathematical formulas:

1. Product profits = product price (total production and marketing costs of the farmer (product))
2. Wholesaler profits = Wholesale price - (product price + Total costs of marketing operations for the wholesaler).
3. Retailer's Profit = Retail Price - (Wholesale Price + Total Marketing Operations Costs of the Retailer).

The following table shows the results that were reached, as follows: Table (2) the costs of marketing operations and the profits of the wholesaler and retailer for the tomato crop in Salah al-Din governorate for the season agricultural 2020

Low relative marketing margin for lack of added services for the retailer on the farm door crop

Table (2) Marketing margins between the different marketing stages of the tomato crop in Salah El-Din Governorate for the agricultural season 2020

| The price that the farmer receives (product) dinars/kg | Wholesaler price dinars/kg | Selling price to the consumer in dinars/kg | Total production | Costs of marketing operations for farms dinars/kg | The costs of marketing operations for the wholesaler, dinars/kg | The costs of marketing operations for the retailer, dinars/kg | Total costs of marketing operations for farms, wholesaler and retail | Producer profits | Profits of the wholesaler dinar/kg | The profits of the retailer dinar/kg |
|------------------------------------------------------|---------------------------|------------------------------------------|-----------------|-----------------------------------------------|------------------------|------------------------|----------------------------------|----------------|-----------------------------|-----------------------------|
| 382                                                  | 504.4                     | 701.7                                    | 154.73          | 51.2                                          | 6                       | 46.25                                | 103.45                          | 330.8          | 116.4                      | 151.0                      |
Marketing Efficiency Measurement:

Marketing efficiency is one of the most important economic criteria used in measuring market performance, and improving the measurement of marketing efficiency is the most important goal for each of service providers (marketers), producers, consumers and society in general (Al-Faraji, 2014, 50).

First: Measuring the marketing efficiency of the tomato crop in the governorate Salah al-Din through the formula that reflects the ratio between the total marketing costs and the total costs (production and marketing) as follows:

\[
\text{Marketing efficiency (1)} = 100 - \frac{\text{total marketing costs}}{\text{total costs (production and marketing) as follows}} \times 100
\]

\[
= 100 - \frac{103.45}{258.18} \times 100
\]

\[
= 59.93\%
\]

Using this scale, the results of the marketing efficiency of the tomato crop (59.93%) This clear discrepancy in the results of the marketing efficiency shows low production costs and high marketing costs, but without marketing services on the farm door price resulting from a discrepancy in production costs and marketing costs of the crop.

Second: Measuring the marketing efficiency of measures (2) as in Table (4) through the following scale:

\[
\text{Marketing Efficiency (2)} = 100 - \left\{ \frac{\text{Absolute Marketing Margins}}{\text{Marketing margins + production costs}} \times 100 \right\}
\]

Product and wholesale = \[
100 - \left\{ \frac{81.86}{81.86 + 154.73} \times 100 \right\} = 65.41\%
\]

Retail and wholesale = \[
100 - \left\{ \frac{197.3}{319} \times 100 \right\} = 43.95\%
\]

Retail and Product = \[
100 - \left\{ \frac{391 + 154.73}{319} \times 100 \right\} = 32.66
\]

Marketing Efficiency (3) = \[
100 - \left\{ \frac{\text{Total production and marketing costs}}{\text{the value of the marketed commodity (consumer price)}} \times 100 \right\}
\]

\[
= 100 - \left\{ \frac{258.45}{701.7} \times 100 \right\} = 63.16\%
\]

Through this formula, the marketing efficiency was calculated and it was found that it was about (63.160) for the tomato crop, and from this we conclude that there is a difference in marketing efficiency in the three relationships, and these three relationships are used according to the availability of data for the researcher.

Table (3): Measuring marketing efficiency according to the first and third formulas for the tomato crop in Salah al-Din Governorate for the 2020 production season

| The price received by the farmer is dinars / kg | Consumer price per kg dinars / kg | Production costs per ton thousand dinars / kg | Marketing costs of the product, wholesale and retail, thousand dinars / kg | Marketing costs + production costs, thousand dinars / ton | Marketing efficiency through the first relationship | Marketing efficiency through the third relationship |
|-----------------------------------------------|----------------------------------|---------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| 382                                           | 701.7                            | 154.73                                      | 103.45                                                          | 258.18                                          | %59.93                                        | %63.16                                        |

Source: Calculated by the researcher based on Table (2).
Table (4): Marketing Margin and Marketing Efficiency According to Formula (2) for Marketing Stages Wholesaler, farms, retailer, wholesaler, farms and retailer

| sequence | Marketing stages                  | marketing margin | optimum production costs | Marketing Efficiency % |
|----------|-----------------------------------|------------------|--------------------------|-----------------------|
| 1        | Wholesaler and farmer stage       | 81.86            | 154.73                   | 65.41                 |
| 2        | Retailer and wholesaler stage     | 197.3            | 154.73                   | 43.95                 |
| 3        | Stage farmer and retailer         | 319              | 154.73                   | 32.66                 |

The source was calculated by the researcher based on the data in Table (3).

CONCLUSIONS

1. The research concluded that the average marketing costs for the producer, wholesaler and retailer are (51200 - 6000 - 46250) dinars / ton, respectively. The total marketing costs amounted to (103450) dinars / ton, which indicates the high marketing costs of the crop from the consumer dinar.

2. I concluded that there is an increase in the absolute importance of the marketing margin between the price of the product - the consumer. The reason is due to the fact that Allawi wholesale (offices) did not conduct any actual and facilitating marketing functions (collecting, sorting, grading, packaging, cold storage) as for what is related to The absolute importance of the marketing margins for retailers has been very high due to the difference in prices between the wholesale market and the retailer’s price without performing any marketing functions. As for the importance of the relative marketing margin between the price of the product and the consumer, it also represents a high percentage of what the consumer pays, reaching as an average (42.37) %, which means that (42.37) of a dinar of the price paid by the consumer to obtain a kilogram of the tomato crop, his profits go to intermediaries (wholesaler and retailer).

RECOMMENDATIONS

1. This study recommended opening new outlets for wholesale sales and expanding wholesale offices, as the study showed that there is a scarcity and shortage in wholesale markets, and this in turn leads to many wholesalers monopolizing the crop and selling it at prices that suit them.

2. Also, the necessity for the owners of wholesale offices to carry out the necessary marketing functions (sorting, grading, classifying and packing).

REFERENCES

Ismail, Sobhi Muhammad, Al-Qunaibit, Muhammad Al-Hamid. (1995). Agricultural Marketing, Dar Al-Marih Publishing House, Riyadh, Saudi Arabia.

Al-Hadithi, Fixed Headache (1993). Estimating the marketing margin for the main vegetable crops in Iraq, a field study, Journal of Agricultural Sciences, Volume 24, Issue 2, Iraq.

Al-Faraji, Ahmed Mohamed (2015). Study of economic analysis of production and marketing of some vegetable crops in Baghdad governorate for the 2014 summer agricultural season, PhD thesis, Department of Agricultural Economics, College of Agriculture, University of Baghdad.

Al-Shammari, Salam Moneim Zamal. (2002). Marketing Table Eggs in Baghdad Governorate - An Economic Study, Master Thesis, University of Baghdad, College of Agriculture.

Al-Tarwana, Salah Yousef, (2010), Principles of Agricultural Marketing, Dar Ward Jordan for Publishing and Distribution, Amman, Jordan.
الكفاءة التشغيلية لمحصول الطماطم في العراق لعام 2020
محافظة صلاح الدين نموذجاً وتطبيقاً

أعمال جمال يوسف
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الخلاصة

يعتبر محصول الطماطم من أهم محاصيل الغذائية الاستهلاكية اليومية والتي تدخل في سلة المستهلك ولاهمية دعت الضرورة – دراسته من خلال عينة عشوائية مكونة من (145) استمارة استبيان منها(75) محصنة للمزارعين و(35) استمارة مخصصة لكل من تاجر الجملة و(35) لتجار التجزئة في محافظة صلاح الدين، ولد للإشارة إلى متوسط عدد الدوامات المرتبطة بالمحصول لعيينة البحث (5.2) دونم، حيث أن إنتاج الدوام الواحد بلغ متوسط (4.8 طن/دونم)، وبلغ متوسط أعمار المحصول للمنتج دونم (2.8-4.0) دونم/كغم على التوالي، إذ أن الجملة وتاجر التجزئة (382-400) دونم/كغم على التوالي، أما بالنسبة للهامش التسويقي المطلق بين تاجر الجملة – منتج، تاجر تجزئة – جملة، تاجر تجزئة – جملة، بلغ (81.3-197.3-319) دينار/كغم على التوالي، أما الهامش التسويقي النسبي بين تاجر الجملة – منتج، تاجر الجملة – تاجر التجزئة، تاجر التجزئة – منتج، بلغ (26.11-42.37-50.5) على التوالي، واختلف أرباح تاجر النظافة من المحاصيل التشغيلية بالمرتبة الأولى، أما أرباح تاجر الجملة فقد اختلفت المرتبة الثانية، وتم قياس الكفاءة التشغيلية، بلغ متوسط الكفاءة التشغيلية حسب القوانين الثلاثة للقياس (1) بلغت (59.61%) للقياس (2) بلغت (65.41%) للقياس (3) بلغت (63.16%) استنجدت أنها منخفضة عند مقارنتها مع النظام التشغيلي لباقي دول العالم، للاحتفاظ ارتفاع أرباح تاجر التجزئة من المحصول، ويعتبر سبب ذلك إلى القدرة على تجارة التجزئة في المساواة من دون أن يتم خدمات تسويقية، وتمت هذه الدراسة إلى فتح منافذ جديدة للبيع بالجملة وتوزيع مكاتب المثلجات حيث أظهرت الدراسة أن هناك شحة وفقرة في أسواق الجملة وهذا يعود إلى اكتشاف الكثير من تجار الجملة للمحصول وبيعه باسعار تناسبهم، وكذلك ضرورة قام اصحاب مكاتب البيع بالجملة بالوظائف التشغيلية الضرورية من فرز وتوضيح وتوزيع وتعبئة، وتمت هذه الدراسة إلى فتح منافذ جديدة للبيع بالجملة وتوزيع مكاتب المثلجات حيث أظهرت الدراسة أن هناك شحة وفقرة في أسواق الجملة وهذا يعود إلى اكتشاف الكثير من تجار الجملة للمحصول وبيعه باسعار تناسبهم

الكلمات المفتاحية:
الكفاءة التشغيلية، الهامش التسويقي، كفاءة تسويق محصول الطماطم

Thamer, Ghassan Hashem. (2013). Marketing efficiency of the most important vegetable crops in Anbar Governorate, Iraq, a field study, Journal of Agricultural Research, Volume (39), Issue (4).