

Mohamed A. Al- Hebshi
malhebshi@hotmail.com

Inefficiency in Market Profit Distribution Effected Date Palm Production in Yemen

Abstract

Farmers in Yemen are facing many problems related to natural resource endowments, availability of water and in the marketing of their products. Despite the difficult natural circumstances the farmers produce agricultural commodities, including Date palm.

This product is sometimes sold in local markets and sometimes the product

is sold to middlemen who transport the commodities to the markets or directly to the consumers. The value added in the chain will be distributed over the various actors, the farmers, the transportation sector and the middlemen.

As a result of the actions of the middlemen only a small part of the value added in the chain is to the benefit of the farmers. The prices that



are offered to the farmers do not allow compensating for the costs and this result in low profits or no profits at all to the farmers.

As a result, the farmers are not able to expand their activities and are facing very low incomes and the risk of complete bankruptcy. This is a limiting factor for agricultural development and hampers modernization of the Date palm trees in Yemen.

Based on the feasibility study of Net Revenue (\$)/ha for farm in Wadi Hadramout during 2002 to 2006 the net revenue is negative for the farmers. In 2006 farmers lost is 233(-\$)/ha. While the middlemen gain profit of about 4,256 (\$)/ha, for the same Year that means the net marketing margin is 244% for the middlemen profit. Marketing is frustration for small farmers in Yemen. Farmer's production increased, but their income did not.

Keywords: Inefficiency in Market Profit Distribution Effected Date Palm Production in Yemen. Farm Gate Price, producer surplus, Consumer price, Market marginal, Middleman marketing profit, Fair prices. [Very poor keywords selections.]

Methodology

This study was based on data collected from the Ministry of Agricultural and Irrigation Yemen, Department of Monitoring and Evaluation, for the cost of Date Palm producers, market intermediaries in production. The Retail price of Date Palm was calculated from Sana'a City market. Wadi Hadramout was selected for this study because it is considered the main Date Palm growing area in Yemen.

The successful use of advanced methods of marketing analysis is heavily dependent on the availability of data which is not the case in Yemen, secondary data like national

statistics and surveys conducted by different organizations. Especially with the latter, it is likely that they have followed different standards and procedures and hence may vary significantly in quality, validity and representativeness. Hence, there is a need for a thorough validation and repeated discussion of the results. Such discussion will yield the need for additional data collection, especially when dealing with specific operational decisions such as intervention targeting and support intensity. In order to empirically advance for this case the existing data had used in the input-output analysis (See Table 1-5 in appendix 1) for Date Palm marketing analysis in Wadi Hadramout.

Market margin analysis

Marketing margin are the differences between prices at two market levels farm get price and consumers price. Marketing margins have been examined on the basis of data obtained on prices at different stages of the marketing chain. Marketing margins have been calculated through computing the absolute margins or price spread, which is essentially the same as the difference between the prices, paid and received by each specific marketing agency. The following formula has been used to compute percentage marketing margins as earned by each market intermediary in the marketing of farm products.

1- Farm profit = Gross Revenue (\$)/ha - Total costs (\$)/ha (See Table 2).

2- Marketing Margin = Farm get price - Consumer price. (See Table 3).

3- Percentage marketing margins = $\frac{\text{Farm get price} - \text{Consumer price}}{\text{Farm get price}} \times 100$ (See Table 4).

Table 2 shows that Farm profit = Gross Revenue (\$)/ha - Total costs (\$)/ha = 1,744 - 1,977 = -233(\$)/ha. That means

farm has received less prices than the real cost of production.

The average period lost is -806 (\$)/ha (2002 to 2006).

Table 3 shows that middlemen have received high profit it is 1,109 (\$)/ha in 2002 up to 4,256 (\$)/ha in 2006, with average period 2,307 (\$)/ha.

Table 4 shows percentage Marketing margins earned by the middlemen in Sana'a is 172% 2002 to 244% in 2006 with average period 238%

Breakdown of consumer's one USA Dollars

Breakdown of consumer's dollars is a phrase applied to the manner in which a consumer's one dollars expenditure on a particular commodity is divided among the producer and marketing agencies. It shows from Table 4 that portion of a consumer's dollars which goes to the producer is 0.44 cent and 1.06 is earned by various marketing agencies such as contractors, commission agents, wholesalers and retailers. This was calculated by expressing the net margin of a specific agency as proportion of the retail price.

Marketing costs

The marketing margin indicates the amount received by different marketing agencies for providing their services, from the time when commodity leaves the farm until it reaches the consumers. Such costs are not known and it is not included in the analysis.

Conclusions

Like farmers throughout the world, but especially in developing countries, Yemeni farmers work hard throughout the year to produce high quality crop and livestock products in sufficient quantities to reach profitable levels.

Table 1. Crop budgets of the means cropping patron in Wadi Hadramout 2006.

Cropping pattern	Average	Dates	Alfafa	Mango	Banana	Onion	Tomato	Garlic	Potato
Gross Revenue(\$)/ha	4,469	1,744	6,380	7,356	4,905	3,834	-	7,200	4,336
Total costs (\$)/ha	1534.7	1,977	2,265	2,372	2,221	1,150	359	1,060	873
Net Revenue (\$)/ha	2,935	233	4,115	4,984	2,684	2,684	359	6,140	3,463

Calculated from Tables in appendix 1.

Table 1 shows that all crops net revenue is positive, except the Date Palm and Tomato are negative by 233 and 359 USA\$.

Table 2. Net Revenue (\$)/ha for farm Date Palm in Wadi Hadramout 2002 to 2006.

	2006	2005	2004	2003	2002
Yield(kg)/ha	4,000	2,200	2,080	1,384	1,350
Farm gate price (\$/kg)	0.44	0.4427	0.421053	0.34	0.479
Gross Revenue (\$)/ha	1,744	974	876	473	646
Total costs (\$)/ha	1,977	1,959	1,583	1,706	1,521
Net Revenue (\$)/ha for farm	233	985	707	1,232	875

Calculated from Tables un appendix 1.

Table 3. Net Revenue (\$)/ha for middlemen in Sana'a City 2002 to 2006.

	2006	2005	2004	2003	2002
Consumer Price (retail price in Sana'a City)	1.5	1.5	1.5	1.3	1.30
Gross Revenue(\$)/ha	6,000	3,300	3,120	2,075	1,755
Total costs (\$)/ha	1,744	974	876	473	646
Net Revenue (\$)/ha for middlemen	4,256	2,326	2,244	1,602	1,109

Calculated from Tables in appendix 1.

Table 4. Percentage Marketing margins earned by the middlemen in Sana'a 2002 to 2006.

	2006	2005	2004	2003	2002
Farm gate price (\$/kg)	0.44	0.4427	0.42105	0.34	0.479
Consumer Price (\$/kg)	1.5	1.5	1.5	1.3	1.30
Market Margin (\$/kg)	1.06	1.06	1.08	0.96	0.82
% Market Margin (\$/kg) for middlemen	244.12	238.82	256.25	280.00	171.56

Middlemen profit = Gross Revenue (\$)/ha - Total costs (\$)/ha = 6,000 - 1744 = 4256 (\$)/ha. From the table (4) the marketing margins earned by the middlemen in Sana'a was $(1.06 / .44 * 100) = 244$ (\$/kg) (Retail price in Sana'a City).

Table 5. Date palm prices in Sana'a City 2007- 2008.

2008 price (\$/kg)	Inflation Rate	2008 price (YR/kg)	2007 price (YR/kg)	Kind
3	200	600	300	Al-Ngrani (Saudi)
2.5	167	500	300	Al-Hadhramy(Saudi)
2.75	183	550	300	Al-Bashy(Saudi)

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However, also like farmers everywhere, Yemeni farmers lack marketing information, alternatives, knowledge, skills, tools, and institutions to make the most of selling the products they worked so hard to produce. Marketing issues are particularly frustrating for farmers because they often perceive that the 'middle man' or the broker gets more of the consumer dollar than the farmer does. Marketing is frustration for small farmers in Yemen. Farmer's production increased, but their income did not.

Recommendations

It is strongly recommended that policy for equity and normally margin profit for both Farmers and middlemen are applying inside the retail market areas in Yemen.

Efforts to Improve Date Palm Production in Yemen and link it with food security and poverty elevation.

Agricultural economists at the Faculty of Agriculture, Sana'a University, Sana'a, ROY, in cooperation with UAE University Conduct joint baseline survey to carry out reliable econometric analysis in Date Palm Production in Yemen.

Farmers want new marketing principles to enhanced marketing capacity and policy for small farmers to get fair prices for their productions.

References

Agricultural Year Kooks – 2002 to 2006.

Ali Muhammed Khushk & M. Ibrahim Lashari. Marketing margin analysis of flowers in Sindh Aug 27 - Sep 02, 2001.

CAB International, agro. food marketing, 1997.

Dr. Mohamed A. Al-Hebshi, Economics of Poverty, Environment and Natural Resource Use, Does Small Farmer Investment In Bananas Jeopardize Macroeconomic Stability In Yemen, International Conference, 17- 19 May 2006, Wageningen International Congress Canter, Wageningen, The Netherlands.

Daniel H. Pick, Jeffrey Karrenbrock, Hoy F. Carman, Price asymmetry and marketing margin behavior: An example for California - Arizona citrus [Year, Publication Date?]

Food and Agriculture Organization of the United Nations (FAO); United Nations World Food Programme (WFP), Special, Report - FAO/WFP Crop and Food Security Assessment Mission to Yemen, Date: 09 Dec 2009.

Groundwater & Soil Conservation Project, Sauyen Hadramout December 2007.

Ministry of Planning and International Cooperation (MoPIC), YEMEN HOUSEHOLD BUDGET SURVEY 2008, CSO, Sana'a Yemen, 2009.

Ministry of Agriculture and Irrigation, (MoAI), The Cost of production of mean crops in Hadramout, Department of Monitoring & Evaluation, Sana'a Yemen, 2007.

Table 5 explains the market situation, Retail price in Sana'a City increased from 1.5 US\$ in 2007 to 3 US\$ in 2008 this means the inflation rate is 200% for date palm. Also, Family Budget Survey 2008 indicted that Yemen had import date palm from Saudi Arabia by 30 million USA dollar, these indicted demand is higher than supply.

Appendix 1.

Crop budgets input output Analysis of the means cropping patron in Wadi Hadramout 2002 to 2006.



Cropping pattern	Dates	Alfafa	Banana	Onion	Tomato	Garlic	Potato
Area cultivated(million ha) 1	0.005	0.00321	0.00022	0.00123	0.00025	0.00012	0.00019
Rainfed area (million ha)	0.002695						
Irrigated area (million ha)	0.00270	0.00321	0.00022	0.00123	0.00025	0.00012	0.00019
Irrigation water use(m ³ / ha) 2	19,987	21,640	25,583	12,459	7,032	11,509	6,662
Total irrigation use(MCM)	53.86	69.51	5.63	15.32	1.78	1.36	1.26
Yield(kg)/ha	4,000	11,000	11,964	8,520		4,500	8,672
farm gate price(\$/kg)	0.44	0.580	0.41	0.5		1.6	0.5
Gross Revenue(\$)/ha	1,744	6,380	4,905	3,834	-	7,200	4,336
Water related costs (\$/ m ³)	0.08	0.08	0.06	0.06	0.05	0.05	0.04
Capital costs(\$/m ³)	0.043	0.039	0.031	0.028	0.025	0.023	0.021
Maintenance(\$/m ³)	0.0072	0.007	0.005	0.005	0.004	0.004	0.003
Operation -Diesel (\$/ m ³)	0.033	0.030	0.024	0.022	0.019	0.017	0.016
diesel use (litre/ m ³ water)	0.18	0.165	0.134	0.120	0.108	0.097	0.088
Cost of diesel(\$/litre)	0.179	0.162	0.131	0.118	0.106	0.095	0.086
Operation (Oil \$/m ³)	0.003	0.003	0.002	0.002	0.002	0.002	0.002
Labor costs (\$/ha) 3	124	382	397	317		316	378
Other cost 4	175	197.00	210	125		215	219
Irrigation water applied(m/ha)	2.00	2.16	2.56	1.25	0.70	1.15	0.67
water cost (\$/ha)	1,678	1,686	1,614	708	359	529	276
Total costs (\$)/ha	1,977	2,265	2,221	1,150	359	1,060	873
Net Revenue (\$)/ha	233	4,115	2,684	2,684	359	6,140	3,463
Returns to water \$/m ³	0.1	0.3	0.2	0.3	-	0.6	0.7

1. Ag. S. Sources of Area and productivity are the Agricultural Year Kook – 2002 to 2006.
2. Grw. S. P. Groundwater & Soil Conservation Project, Sauyen Hadramout December 2007
3. DRC. المصادر: تقرير التنمية البشرية . الإحصاء الزراعي لعام 2006 . د. عبد العزيز -خبير الفاو)دراسة تكاليف الموارد المحلية.
4. Other cost (manure, urea, chemical fertilizers, chemicals) (\$/ha)