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# Monopolism versus Competition: Assessing Impacts on Export Capability (Comparative Study on Gum Arabic Export Merit)

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## Abstract

This study aims to examine the impact of key policy changes on the gum Arabic sector after Gum Arabic Company concession withdrawn. Focusing on attitude of production and export performance. It is an attempt to contribute to solve the problem of huge decline and fluctuation of Gum Arabic production and exports in last decay. This decline had led to drop in revenues. Many factors were behind this problem ; part of them are naturally as drought, and mainly are human made as lack of policies and strategies of both government and the Gum Arabic Company (GAC), which was monopolized gum Arabic exports till recent years. The main object of the study was to evaluate the impact of de-monopolism policy on gum export performance, and generally, the paper intended to conduct comparative study between monopolism and competition. The study has formulated some hypotheses, concluded to that; monopolism policy of gum export is ineffective. Data has conducted through questionnaire, personal meeting, records and observation. Statistical Package of Social Studies (SPSS) has used to test the hypotheses and get results. The results confirmed that, monopolism policy is ineffective and mainly caused in the drop of the exports revenue and lowered Sudan world market share.

Keywords: Gum Arabic, competition, monopolism, capability.

#### **1-Introduction**

Gum Arabic is a dried exudate from stems and branches of (Acacia Senegal or Acacia seyal). It is the oldest and best –known of the natural gums mixture of polysaccharides and glycoprotein gives it properties of a glue and binder, which is edible by humans. In the past, it has used as a wine fining agent, (Vivas et al 2001). Currently Gum Arabic is an important ingredient in soft drink syrups, M&M's chocolate candies, and edible glitter, a very popular, modern cake-decorating staple. For artists, it is the traditional binder used in watercolor paint, in photography for gum printing, and it is used as a binder in pyrotechnic compositions. Gum Arabic used as an emulsifier and a thickening agent in icing, fillings, chewing gum and other confectionary treats, (Laura & Glenn 2009).

Pharmaceuticals and cosmetics also use the gum as a binder, emulsifying agent and a suspending or viscosity-increasing agent, and recently it been investigated for use in intestinal dialysis, (Smolinske 1992).

Production of gum Arabic in Sudan is concentrated in the "gum belt" an area of central Sudan roughly between latitudes 10° and 14° north. The Gum belt's gross area estimated to cover 520,000 square kilometers, roughly quarter of current Sudan's total area (after south separation). It spans over eleven states and consists the four main regions; North Kordofan, South Darfur, Blue Nile and South Kordofan. Small-scale farmers in traditional rain-fed farming areas (central and western Sudan) mostly produce Gum Arabic; they represent up to 20 percent of Sudan's population, or around 6 million people. Main producers usually give priority to food crop production (usually sorghum or millet) and seek other sources of income to increase their financial returns via cultivation of gum Arabic. Sudan annual production varies from one year to anther due to weather conditions (draught), insufficient funding for producers, and tribal conflict (War in Darfur). Historically Sudan was the main supplier of raw gum Arabic, with a market share of about 80%.Exports dropped from 60 thousand metric tons a year in 1960s-70s to about 30 thousand metric tons a year in 1980s-90s, rising again in the 2000s -2010s to about 35 thousand metric tons. It represents between 40-50% of world supply.

#### **1.1-Internal marketing**

Internal gum Arabic marketing in Sudan is free and take place at auctions competition. Merchants licensed to buy at auction must immediately make payment after the auction. The minimum price can be paid at auction is the (Floor Price), i.e., the official price of the government. Gum Arabic Company must buy non-bought gum at auction at official floor price. Most producers usually sell their products directly to the company through its local agents. Gum Arabic company handles cleaning, sorting, packaging and export processing.

Taxes and duties are imposed on gum at locality level and states level, in additional with taxes are collected on the way from production areas to export port, where GAC has its stores. Taxes represent between \$200 and \$400 per metric ton. Most producers claim that taxes represents a major barrier to the development of

the sector (GAC 2010).

#### **1.2-External marketing**

External gum Arabic marketing in Sudan were monopolized over raw gum by GAC over last forty years in order to regulate exports to increase the revenue, to guarantee production to protect producers through the provision, and to maintain gum Arabic trees. In 2002, Sudan government permitted to investors who cultivate certain area with gum trees to export raw gum Arabic. Currently many companies exporting raw gum from their planation. Since 2003, processed gum exports allowed for the companies obtain licenses. Many companies granted licenses, including the four main GAC international agents who established processing facilities in Sudan (crushing facilities to make "cleaned grade")in order to ensure improved supply for their processing lines in Europe and America. Later on, in 2009, GAC concession withdrawn allowing more firms to trade in raw gum Arabic in order to revive gum Arabic production. This situation caused increasing of competition between GAC, its international agents and other processors pushed up prices paid to producers.

#### **1.3-International marketing**

Global raw gum Arabic production comes mainly from Africa. As no production figures are available, only export statistics give an idea about scale of production. Annual world production varies according to weather condition and price status. During the period of ten years (2011-2015), exports developed with remarkable variation between 25 thousand tons to 95 thousand tons, averaging 50 thousand tons a year. Sudan, Nigeria, and Chad are main producers; they produce together about 95% of the world gum Arabic export (Table-4).

Based on export statistic, researchers estimated current world annual demand between 80 -100 thousand tons. It has kept up by increasing consumption of soft drink and confectionary, beside new applications developed in dietary and health foods. Future perspectives for development of gum Arabic are good, demand projected to reach 150 thousand tons in 2020, (FAO-2010). The major importers are Europe and United States, as they both account for about 80% of global raw gum Arabic trade (Eurostat-2015). Most of imported gum processed in Europe and USA and then re-exported. As per CBI, 2015 majority of re-exported gum Arabic handled by European countries. In fact, the key gum Arabic merchants and manufacturing companies are located in France, the United Kingdom and Germany. These three countries re-exported about 83% of total gum Arabic. France, to date, remains the leading importer and re-exporter worldwide of gum Arabic. France achieves more of crude value-added, makes the greatest profits on its re-exports.

#### **1.4-Gum Arabic Company (GAC)**

Gum Arabic Company (GAC) has established in 1969 as public company, with exclusive concession to export raw gum Arabic. The main objective was to regulate exports to increase exports revenue, guarantee production and product producers. This concession continued for more than forty years, until it polished in 2009. The company (GAC) is involved in purchasing, preparing and exporting raw gum Arabic. The GAC monopoly on raw gum Arabic polished in 2009. The company (GAC) has negatively affected by the last changes in gum Arabic marketing arrangements. GAC sales to its usual clients dropped, as result of clients starting to source kibbled gum from Sudanese processors. GAC international agents now have their own processing facilities in Sudan. So GAC now suffering weak marketing capacity and facing many challenges threat to its survival, so government support is highly required to avoid its collapse.

## 2-Literrature review

Market is considered as a set of sellers and buyers whose behavior affect the price at which a good or service is old. The four major types of markets are perfect competition, monopolistic competition, oligopoly and monopoly. Perfect competition market is at one extreme with many small firms selling identical products. Monopoly market is at other extreme with just one firm. The intermediate cases are monopolistic competition market, which involves many small sellers producing slightly differentiated products, and finally oligopoly, which involves a small number of large firms. Most world firms operate under monopolistic competition or oligopoly. However, this study focusing on the two extremes: perfect competition and monopoly. Perfect competition market required three conditions, first one, numerous small firms and customers in which the decisions of individual producers and buyers do not affect the price of product. Second one, homogeneity of product in which the products offered by sellers are identical so that consumers do not care from which firm they buy the product. Third condition is the freedom of entry and exit. There are no barriers to enter the industry, so new firms can compete with old ones relatively easily. There is also freedom to exit, so firms can leave the industry if the business is unprofitable.

Monopoly, on the other hand, exists when there is only producer and many consumers. Monopolies characterized by a lack of economic competition to produce the good or service and lack of viable substitute goods. As a result, the single producer has control over the price of a good, in other words, the producer is a

price maker that can determines the price level by deciding what quantity of a good or service to produce. Public utility companies tend to be monopolies.

### 2.1-Monopoly and Competition

Similarity between perfect competition and monopoly represented in their facing the same cost and production functions, and both seek to maximize profit. However, they have several key distinctions. In a perfectly competitive market, price equals marginal cost and firms earn an economic profit of zero, while in a monopoly, the price is set above marginal cost and the firm earns a positive economic profit. Perfect competition produces an equilibrium in which the price and quantity of a product is economically efficient, while monopolies produce an equilibrium at which the price of a product is higher, and the quality lower, than is economically efficient. Therefore, most governments often seek to regulate the monopolies and encouraged increased competition. The principle for a thriving and health free market economy is many buyer and many sellers. Competition refers to those "aspects of economic relationships in which voluntary exchange and choice among a large number of possible buyers and sellers play the predominant role, (Bowles, Edwards & Roosevelt-2005, p. 54). Competition has also been defined as the "formally peaceful" process by which actors try to obtain advantages also wanted by other actors (Hayward & Kemmelmeier 2007, p. 368). Although economists may debate to what extent such competition is desirable in certain areas of the economy, for instance in the education sector (Vlachos 2012). Stiglitz, 2001 generally view competition as a pivotal prerequisite for a dynamic market economy. For instance, Mankiw (2012) writes that "since the days of Adam Smith, economists have understood that the invisible hand of the marketplace works only if producers of goods and services vie with one another" and that this competition "keeps prices low and provides an incentive to improve and innovate." While the reasons for economists' favorable view of competition may seem quite clear, it may also be of interest to understand what predicts the views of people in general. This is especially true if one accepts the notion that "competition is the underpinning of the market economy, and the success of any market economy is contingent on the acceptance of the principles of competition" (Hayward & Kemmelmeier 2007, p. 365). Following Gwartney, Lawson & Hall (2012), defined "economic freedom" as being present when actors are free to participate and compete in the marketplace, when their property rights are protected, and when there is great scope for choice and voluntary exchange through markets.

## 2.2-Statement of the problem

After close to forty years of concession to GAC, to manage export of gum Arabic, the results showed in the followings:

I- Downfall of Sudan world market share to less than 50%.

Ii-Decline of production and exports annually, at average rate of 3 percent.

Iii-Lower producers return.

Iv-Emerge of close competitors.

V- Increasing of smuggling via boarders.

## 2.3-Objective of the study

The main objective of this study was to evaluate the impact of free competition policy on increasing and stabilize gum Arabic production and exports, in order to capture more value added to Sudan and provide producers with a larger share of export prices.

## 2.4-Research hypothesizes

To attain the objectives of the study, the following research hypothesizes have been set based on the revelation in the review of literature concerning relationship between marketing capabilities and export performance.

#### Hypothesis 1

There is strong positive relationship between free competition policy and production capability.

#### Hypothesis 2

There is strong positive relationship between free competition policy and exporting capability.

## **3-Methodology of Study**

#### **3.1-Data collection**

Data collection has conducted from primary and secondary resources. The secondary data resources were library researches, published material and worldwide web. While primary data was collected via questionnaire that designed to measure the impact of free competition policy on capabilities of Gum Arabic production and exporting. Questionnaire formulated based on four independence variables of free competition marketing, which were product, price, place (distribution) and promotion. The dependent variables were production and export capabilities, which considered in terms of volume and revenue.

The study generally displayed gum Arabic export over forty years, focusing on the post years of free competition implementation policy. Total of (150) questionnaire were distributed, (128) was returned with response rate of (87%). Some of retuned questionnaire excluded due to incomplete information. As result (120) questionnaire considered as valid for test. Overall (30) questions were developed to be answered based on Five Points Likert Scale (one= strongly disagree to five= strongly agree) as it is considered to be an easier approach to collect data (Yu and Egri 2005). It is important to mention that, the survey instrument translated and back translated.

### 3.1.1- Sampling

The target population of this study made up of all gum Arabic producers and exporters in the four main production regions in Sudan. Respondents were selected randomly, (30) for each region, using random technique.

## 3.1.2- Variables

Respondents had asked to indicate their perception about production and exporting capabilities post implementation of free competition policy. Product capability measures the products volume, quality and degree of diversification. Price capability measured by assessing the sales return. Promotion measures budget and effectiveness of promotion activities in international markets. Distribution capability captures the distribution budget and effectiveness of distribution activities in international market. The operationalization of this study is consistent to Zou et al. (2003). A four –item five point Likert scale, measures export performance. These four items capture the perceived of production and export capabilities as in international market share growth, export volume growth, export revenue growth, and producers return growth. These items are adapted from Katsikeas *et al* (2000) and Diamantopoulos &Winklhofer (2001).

#### **3.1.3-** Test of reliability

Reliability test is conducted based on Cronbach Alpha to measure internal consistency of questionnaire, results was fall between (0.75) and (0.85), which is valid value, because satisfactory should be more than (0.60) for the scale to be reliable (Malhotra 2002). The overall Cronbach alpha of all scales used in this study was (0.80).

#### **3.2-** Statistical methods

The statistical methods used in this study were:

3.2.1- The mean, which is most commonly used measure of central tendency, researchers have used to measure the average answers of respondents.

3.2.2- Standard deviation, which is the most used tool to measure the depression and concentration of respondents answers from the arithmetic mean. Deviation value less than (1.00) refers to the concentration of the answers and lack of dispersion, while deviation above (1.00) shows lack of concentration and dispersion.

3.2.3- T-test, it is used to determine significant differences on certain points (center hypothesis of the study) or the differences between two means.

Statistical Package of Social Studies (SPSS) has used to test the hypothesis.

#### 4-Analysis of Findings

## 4.1- Respondents demographics

All respondents were male (this due to the hindrance and toughness of this business). As per (table-1) majority of respondents (80%) posses B.sc degree, (6%) posses M.sc, and (14%) possess secondary school certificate. This distribution shows that most of the respondents are highly educated people, who could know the concept of marketing strategy. Most of the respondents (56%) have 5-9 years experiences in this field, that indicate the respondents actually spent enough time to know the impact of marketing strategy on performance of Gum Arabic exports.

## 4.2- Hypothesis testing

Testing the study hypothesis as per (table-2, 3) showed positive correlation values that accomplish the objectives of this study. According to (Welkowitz, Cohen and Ewen 2006) correlation coefficient is very useful way to summarize the relationship between two variables with a single number that falls between(-land +1). (-1) indicates a perfect negative correlation, (0-0) indicates no correlation, and (+1) indicates a perfect positive correlation.

# 4.2.1-First hypothesis

Result showed that, there is a significant positive correlation between the free competition policy and product capability as per (table-2). Product design showed the higher value of correlation which is 0.892 at the statistical significant level of ( $\alpha = 0.05$ ) and standard deviation value of 0.824 which is less than (1.00), that indicates high concentration and lack of dispersion. Most of gum exports are in raw form, there is no product diversification. 4.2.2-Second hypothesis

Study result showed, there is a significant positive correlation between the free competition policy and export

capability. Pricing showed higher correlation value, which is 0.879, and standard deviation value of 0.798(table-3). This due to close relationship between price and sales volume, as importers usually unsatisfied of high prices, which push them to favor to use alternatives of gum Arabic from other countries. Statically comparative figures of gum Arabic export volume as per (tables 7, 8, 9) showed that, total export volume increased from MT (212,553) in monopolism period up to MT (548,182) in free competition period by rate of (158%). Achieving total revenue of \$M (549,171), within average price \$/Ton (1453), which is less by 26% than monopolism average price \$/Ton (1867). The mean average of exports under free competition policy showed extra double increase than monopolism conducting MT (78,312), where it was only MT (30,365) under monopolism. Free competition exports obviously indicated huge variance within high range of (218,209), relatively to monopolism range, which was (15,575). This definitely reflects the high dispersion of the figures. The mode of free competition also showed double increase than monopolism, as it was respectively MT (60,035) and MT (36,179). Skewness factor under free competition showed (0.8187105) where  $\alpha$  >zero as per (Person Methodology), that means the curve is skewered to right side of the mean. While it skewered to the lift side in under monopolism due to greater value of median than the mean. Kurtosis figure under free competition was (4.3320635) which is greater than (3). So according to (Moment Distribution Method) which states that if K>3, the curve should be very sharp. That means most values are concentrated beside the middle area of the curve .While it showed kurtosis curve under monopolism, which indicated the value scattering on two ends of the curve. Variant coefficient is very accurate and preferred to use to measure the dispersion degree between two groups. Variant coefficient of free competition was (86.95%), higher than of monopolism (16.57%). This indicated highly dispersion of exports under free competition relatively to monopolism. In last seven years (2009-2015), Sudan gum Arabic exports performance showed significant improvement due to later changes in marketing arrangements, induced from implementation of free competition policy. The return to producers increased in the last seven years (2009-2015) from 100 SDG/Kantar (one Kantar = 100Lbs) in 2009 up to 1500 SDG in 2015 (table-9). This increase was due to high competition on domestic market. Despite of producers increased returns, but this increment mostly absorbed by high inflation rates that average between 35-45 percent a year as per reports of Sudan Central Bureau of Statistics (CBOS-2015).

Post implementation of free competition policy export quantity showed highly variations and obviously increases, as per (table-3); export volume exceed highest points conducting a record score in 2009, with volume of more than (237,000) Metric Tons. However, this record quickly dropped in the next year to MT (18,200), registering contrary record. This may be due to prospect exporter's expectations of the decision to raise the monopoly of exports, so they have purchase and storage large quantities in order to gain high profit. The following years showed highly fluctuation as it mentioned in table-8. This instability of exports may be due to speculation between new exporters and old ones. Generally, this period showed an incremental increase of annual average rate by 158%, i.e. from MT (30,365) in monopolism period up to MT (78,312).

This slight increase of export quantity and the terrible dropped in Nigeria and chad export, pushed the Sudan world market share up to about 75% for the last five years, as per (table-5). The drops of Nigeria and Chad exports is due to war conflict of terrorists and rebels. Sudan export price rates are instable in both conditions (monopolism and competition). Under monopolism (table-7) shows the price was about US\$ 900/MT in 2002/2003, shooting up to above 3000 US\$/MT in 2005/2006, dropping back to 1500 US\$/MT in 2007/2008. Obviously observed; production volume and supply influence the price. While it showed highly drop fluctuation during free competition as per (table-8) price was about US\$ 700/MT in 2009/2010, slightly increased to above 1800 US\$/MT in 2011/2012, dropping back to 1400 US\$/MT in 2014/2015.

Monetarily, Sudan's exports revenue for the period (2009-2015), amounted to more than (\$M 549), with annual average amount of more than (\$M 78), as per (table-8). While it amounted to more than (\$M 398) in the period from 2002 to 2008, i.e. (during monopolism's), within annual average amount of about (\$M 57), as per (Table-7). Even for this increase in revenue due to increase of quantities, but the price rate is decreased by rate of 26%, as dropped from (\$ 1967) down to (\$1453). The amount value revenue of the last year (2015) was about (\$M 112), with price rate of (\$ 1228). Even it was above the annual average, but lower than annual average price rate (\$ 1453).

The main impact of key strategy (competition) and policy changes over the last seven years on gum Arabic exports performance represented in;

a- an increase of annual average volume by the rate of 158%, as it increased from 30,365 up to 78,312 MT, which represents significant progression.

b- An increase in producers return more than five times, from 150 to 1000 SDG, by rate of about 567%, as a sufficient increase satisfy most small producers.

By X-rayed the export capabilities of Gum Arabic in Sudan; the researcher reached to the following findings:

c- Producers sufficient income due to gum high prices pushed them to take more care for cultivation and harvesting of gum trees.

d- High taxes and duties imposed on gum local trade, which represents 40% of export price, directly increased total product cost and impose export price rate.

e- Sudan product supply strategy mainly depends on raw gum, and neglects others product diversification forms, such prossed ones.

f- Fluctuation of gum supply (exports) affected negatively on the Sudan creditability.

#### 5-Conclusion and Recommendations

The primary purpose of this study was to examine the impact of free competition policy on gum Arabic production and exporting capabilities versus the export monopolism. The results of the study showed that, due to monopolism policy, marketing policy and capabilities of both, the Gum Arabic Company (GAC), and the Sudan government were insufficient. Therefore, it caused in drop of production and exports and lead to lowered Sudan world market share. Positive effects of last changes; export free competition policy, lead to increase the annual average export, enabling Sudan to take the largest market share in the world. Despite of positive effects of these changes, but this increase did not lead to remarkable increase in return, due to domination of international market by big buyers, control most of the market. Those importers can also source from other countries if offer is not attractive. One of the benefits of this policy is the increased income of the producers, which has led to increased production and reduced the smuggling process.

To promote this policy, the Sudan government should set an effective productive policy conducive to the prosperity of the gum Arabic sector. This policy should take current considerations: a) increase the cultivated area through regeneration to increase the number of gum trees and protection gum trees from destruction and overharvesting, b) encourage process of gum Arabic to increase added value, via elimination taxes to encourage investors, c) maintain buffer stock inventories to protect against production interruptions to meet growing global demand, d) expand the market through penetration to new markets to increase international agents to avoid domain of certain cartel, e) encourage reaches in global market to get opportunities via understand changing structure on demand, monitoring breakthroughs in substitute's development.

Although this study has contributed to economic literatures, but we have to consider its limitations. Most significantly, this study focused on one country, this may limit the generalizability of the findings to other environmental and country contexts. Future research should validate the findings of this study using data obtained from other countries. Therefore, the findings of this study may be transferable to other African competitor's gum Arabic exporting countries as Chad and Nigeria exhibit similarity in their exporting product and exporting capabilities.

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#### Illustrations

Table (1) Demographics of the respondents. (N=120)

Characteristics	Frequency	Percentage
	Sex	
Male	120	100%
Female	0	0%
Lev	el of education	
Secondary	17	50%
B.sc	96	38%
M.sc	7	12%
Year	rs of experience	
Less than 5 years	28	24%
5-9 years	67	56%
10-14 years	14	12%
15 and above	11	08%

Source: survey data-2016.

## Table (2) Correlation between free competition policy and product capability

Hypothesis	Correlation	Sig.	Std. Deviation
Product planning	0.674	0.000	0.745
Product design	0.892	0.000	0.824
Product lines	0.662	0.000	0.675
Product packing	0.729	0.000	0.735
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Source: survey data-2016.

#### Table (3) Correlation between competition and export capability

Hypothesis	Correlation	Sig.	Std. Deviation
Product capability	0.674	0.000	0.745
Pricing capability	0.879	0.000	0.798
Distribution capability	0.792	0.000	0.675
Promotion capability	0.729	0.000	0.625

Source: survey data-2016.

#### Table (4) World Exports of Raw Gum Arabic (2011-2015)

2011	2012	2013	2014	2015	Total
37217	38444	43307	41149	42316	202433
1050	5407	1931	1231	1443	11062
9672	12044	4188	3816	7860	37580
3097	2393	3930	3474	4329	17223
	37217 1050 9672	37217 38444   1050 5407   9672 12044	37217 38444 43307   1050 5407 1931   9672 12044 4188	37217 38444 43307 41149   1050 5407 1931 1231   9672 12044 4188 3816	372173844443307411494231610505407193112311443967212044418838167860

Source: Word bank statistics-2015

	Table (5)	Major Exporting	Countries (	(2011 - 2015)	
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Country	Average	Total	Percentage
Sudan	41,095	202,433	75%
Nigeria	12,386	11,062	04%
Chad	8,072	37,580	14%
Others	3,474	17,223	07%
Total	65,027	268,298	100%

Source: Researcher-Computed from (Table-4)

## Table (6) Comparative Statistical Correlations of Exports

Indicator	Monopolism	Competition
Mean	30365	78312
Median	30875	59730
Mode	36179	60035
Variance	25310795	4636308859
Standard Deviation	5031	68090
Skewness	-0.304114	0.8187105
Kurtosis	2545490886	4332063576
Range	15575	218809
Lower Value	20618	18200
High Value	36193	237009
Total	212553	548182
Years	7	7
Confidences	95%	95%

Source: Researcher-Computed from (table-4)-2015

Table (7) Sudan Raw Arabic Gum Exports Volumes and Values (2002-2008)

Year	2002	2003	2004	2005	2006	2007	2008	Total	Average
Quantity	36,193	36,164	27,273	29,213	20,618	30,875	32,217	212,553	30,365
M/T									
Value	31,851	35,416	60,598	107,556	50,174	51,873	60,909	398,377	56,911
M\$									
Price	880	979	2222	3682	2435	1680	1891	13769	1967
\$/MT									

Source: Annual reports of COBS-2016

Table (8) Sudan Raw Arabic Gum Exports Volumes and Values (2002-2008)

Year	2009	2010	2011	2012	2013	2014	2015	Total	Average
Quantity M/T	237,009	18,200	45,633	36,350	60,340	59,730	90,920	548,182	78,312
Value M\$	33,071	23,780	81,780	67,100	134,770	96,980	111,690	549,171	78,453
Price \$/MT	140	1307	1792	1846	2233	1623	1228	10169	1453
C A	an anta of (	100 200r	6						

Source: Annual reports of COBS-2016

Table (9) Producers Sale Prices in SDG/Kntar (2011-2015)

Years	2009	2010	2011	2012	2013	2014	2015			
Price/Kantar	150	250	500	700	850	930	1000			
Change %	-	67%	100%	40%	21%	09%	07%			

Source: Word bank statistics-2015