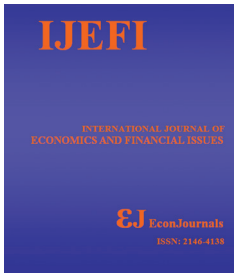

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Development of the Flour-milling Industry in the Republic of Kazakhstan in Modern Times

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ABSTRACT

The article presents flour production behavior in the Republic of Kazakhstan, flour export by countries, wheat flour and bread prices. The authors have analyzed the raw materials base of the flour-milling industry (acreage, yield, crop page). Flour is the most important grain-processing product. It is a raw material for the production of such irreplaceable foodstuffs as bread, bake and paste goods that meet an essential part of human daily needs in vital energy and nutrients. Kazakhstan has a substantial grain and flour export potential. Flour export is important for the grain industry of the Republic, and economy of the country in whole. The country ranks among the six biggest grain exporters in the world. This is because Kazakhstani grain has high milling property, and the quality of Kazakhstani flour is rated high in many countries. It enables Kazakhstani flour to be competitive on the world market and to ensure end markets in different countries. Kazakhstani flour is exported mainly to Uzbekistan, Afghanistan and Tajikistan (90-92% of flour export). A part of local flour is exported to Kirgizia, Turkmenistan and Mongolia. Kazakhstan rapidly develops its grain-processing industry. Grain processing means not only flour production, it includes motor and railway transport, internal and external commercial operations, electricity consumption, etc. The authors present priorities and solutions for the flour-milling industry.

Keywords: Flour, Grain, Production, Sale, Price, Export, Processing, Bread
JEL Classifications: D24, D40, F19, L66

1. INTRODUCTION

Food production is one of strategic branches of economy ensuring stable provision of foodstuffs in quantity and quality needed to the population. More than half of food turnover is accounted for by the food industry; it produces almost all essential foodstuffs, including special food for children. The level of this industry is determined by economic security of the population and is an essential part of food security of the state (Asylbekova, 2013).

The following branches make the bulk in the food production structure: Grain processing (19.4%), dairy (16%), bread and bake goods (15.5%), meat-processing (13.8%), fruit and vegetable (9.4%), oil and fat (9%) (Processing Industry Development Master Plan in the Republic of Kazakhstan, 2020).

Flour-milling industry ranks among the most socially important branches of the agribusiness. Consumers of mill products are as follows: Baking, pasta, confectionary and compound feed industries, retail trade and public catering. Baking industry is the largest. The main baking products – bread and bake goods of different types and grades – are the essential daily foods in Kazakhstan (Joldasbayeva, 2006).

Grain is processed into flour and cereals at flour milling and cereals plants. Wheat (90%) and rye (8%) are the main raw materials for flour production. Flour may be also produced from other crops (barley, rice, oat, buckwheat, corn), but its amount is insignificant in total volume (Seidakhmetov et al., 2006).

At grain mills they use all types of food grains, produced in the Republic, as raw materials. All purchased grain is inspected by the

following parameters: Humidity; organoleptic parameters (flavour, colour); gluten quantity and quality; natural weight; black and grain besatz; weevil contamination; vitreousness; type composition.

Thus, the following products are produced from:

- Wheat – top-, first- and second-grade bread wheat and macaroni flour, medium flour with different composition, manna groats;
- Rye – rye flour, medium, dark;
- Cereal crops (millet, buckwheat) – peeled barley, pearled barley, wheat grits, granular flour, millet (Egorov, 2005).

In the northern region flour mills are located close to the raw materials base and have grains available. This is their advantage. And their weak point is low concentration of the population resulting in the distributed local market. Southern regions are their main markets (Kuatova, 2011).

2. METHODS

Applied methodology is a system of research principles and approaches in the course of knowledge acquisition and development. Methods of this research are shown on Figure 1.

3. RESULTS

3.1. Monitoring of the Current Flour-milling Industry (Production, Sale, Price)

The feature of the flour-milling industry is that most of its plants combine several activities and, according to the research, lately one may notice a process of dynamic combination of production, that is, the plants produce other grain products in addition to flour. The number of plants combining harvesting and production grows continuously. Besides, newly established flour-milling plants are diversified, that is, they effect post-processing of finished products, including production of paste goods, packed grits, etc. (Dugalova, 2008).

The competitiveness of flour mills, their financial stability, effectiveness and development directly depend on variety of produced goods. The greater the variety, the more types of finished goods is delivered to sale, the better demands of different social groups are satisfied, and, as a result, financial stability of the plant is growing (Joldasbayeva, 2005).

As representatives of the Flour Miller Union of Kazakhstan think, the flour-milling industry is an example of effective development of the specific sector of the food industry, when the market of this product is in demand, and, at the same time, local legislation enables this sector to develop actively (Information Agency Kazakh Zerno).

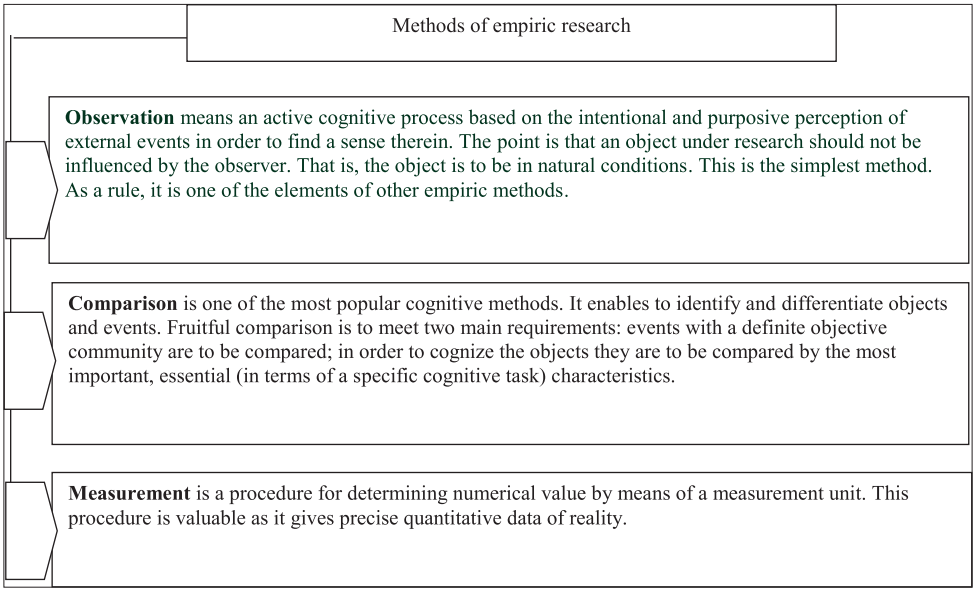
The analysis of the data of the Committee on Statistics of the Republic of Kazakhstan, presented in Table 1, shows the production of flour and baked goods in the Republic of Kazakhstan by volume (in tons) in 2010-2014.

One can see a decrease in flour production by 128,376 tons in 2013 and an increase by 2,414 tons in 2014 for the review period. Bread production shows a decrease of volumes by 16,446 tons in 2014 as compared to 2013. Baked goods (macaroni, noodles, etc.) production increased by 2,166 tons in 2013, and by 5,274 tons in 2014 (Committee on Statistics of the Republic of Kazakhstan).

Local flour market is secured completely. Flour production far exceeds domestic needs of the country. To secure annual consumption of bread and baked goods in the country the flour-milling industry is to process app. 2.6 mln tons of food grains. Existing milling capacities of the Republic exceed local needs of the country 2.4 times and can ensure stable flour export. But today only 38.2% (4,800.0 thousand tons) of grain produced in the Republic is processed, while flour mill capacities allow processing of more than 49.4%.

Kazakhstan has a substantial grain and flour export potential. Flour export is important for the grain industry and the economy of the

Figure 1: Methods of empiric research



country in whole. The country ranks among the six biggest grain exporters in the world. This is because Kazakhstani grain has high milling property, and quality of Kazakhstani flour is rated high in many countries. It enables Kazakhstani flour to be competitive on the world market and to ensure end markets in different countries (Borbasova, 2006).

High competitiveness of Kazakhstani flour on external markets is proved by the index of competitive advantages (ICA), assessing goods competitiveness on external markets, which equals to 7.5 units with regard to flour according to the concept for improving image of agricultural products of Kazakhstan, drawn up in the frames of the project of the World Bank and the Ministry of Agriculture of the RK "improvement of competitiveness of agricultural products in Kazakhstan" (ICA>1 – goods production is competitive, ICA<1 – there are no competitive advantages).

As a rule, export of grain products is more economical. Export of grain products enables creation of new jobs. For the 3rd year in a row Kazakhstan is the world leader in flour export. Flour export on the world market amounts to app. 11.5 mln tons per year, where Kazakhstan takes app. 19% of the market. Yearly Kazakhstan exports 6-7 mln tons of wheat in average, including app. 2 mln tons of flour, which in terms of wheat amounts to 2.8 mln tons (Abuov and Gorelov, 2005).

Table 2 shows export of wheat and wheat-rye flour of the Republic of Kazakhstan by volume and value in 2010-2014.

Kazakhstani flour export behavior by value is as follows: 2011 – USD 15.0 mln growth, 2012 – USD 49.4 mln growth, 2013 – USD 20.4 mln decrease, 2014 – USD 18.8 mln decrease.

The biggest export ratio is concentrated in the CIS countries. Figure 2 shows export increase since 2010 to 2012, and decrease since 2012 to 2014.

Monthly flour export behavior is shown in Table 3.

Monthly export behavior is irregular. In 2010 the biggest ratio (11.5%) was in June, in 2011 (17.7%) – November and in 2012 (11.3%) – May.

Kazakhstani flour is exported mainly to Uzbekistan, Afghanistan and Tajikistan (90-92% of total flour export). Part of local flour is exported to Kyrgyzstan, Turkmenistan and Mongolia.

In terms of geography, one can notice a decrease in Kazakhstani flour export to Uzbekistan: From USD 311.2 mln (in 2011) to USD 285.7 mln (in 2012). And in 2013 the amount was USD 271.3 mln. We can also see a decrease in export to Tajikistan – from USD 91.8 mln (in 2011) to USD 84.9 mln (in 2012) and to

Table 1: Flour and baked goods output indices in the Republic of Kazakhstan by volume (2010-2014)

Denomination	2010	2011	2012	2013	2012-2013 difference	2014	2013-2014 difference
Grains and vegetable flour, ton	3,753,837	3,846,498	4,008,961	3,880,585	−128,376	3,882,999	2,414
Fresh-baked bread, ton	736,692	731,689	721,673	742,521	20,848	726,075	−16,446
Macaroni, noodles, etc., ton	124,054	145,708	145,025	147,191	2,166	152,465	5,274

Table 2: Export of wheat and wheat-rye flour of the Republic of Kazakhstan by countries, 2010-2014

Country	2010		2011		2012		2013		2014	
	Quantity, tons	Thousand US dollars	Quantity, tons	Thousand US dollars	Quantity, tons	Thousand US dollars	Quantity, tons	Thousand US dollars	Quantity, tons	Thousand US dollars
1	2	3	4	5	6	7	8	9	10	11
CIS	1,496,048	341,544	1,540,644	443,845	1,702,847	425,621	1,447,290	431,340	1,202,758	336,985
Azerbaijan	1,702	665	136	63	833	230	40	23	204	113
Belarus	120	49	-	-	20	6				
Kyrgyzstan	23,819	6,678	99,021	28,372	111,513	28,728	133,671	38,900	51,412	13,915
Moldova	265	118	464	277	1,321	582	961	567	1,239	659
Russia	5,269	1,397	258	81	4,488	1,287	44,954	16,315	16,083	5,094
Ukraine	594	129	-	-	-	-				
Tajikistan	366,272	87,157	310,103	91,803	299,221	84,936	231,668	78,599	181,245	62,025
Turkmenistan	47,728	15,231	32,046	12,049	63,393	24,184	52,078	23,883	54,605	23,472
Uzbekistan	1,050,279	230,120	1,098,616	311,200	1,222,058	285,668	983,918	273,053	897,970	231,707
Other countries	801,842	194,625	361,204	107,347	515,716	175,011	428,562	148,893	641,453	224,469
Afghanistan	789,880	190,662	354,414	104,498	506,788	171,407	420,564	144,734	634,985	221,637
China	1,012	204	82	21	60	16	-	-	810	424
Korea	40	13	-	-	837	400	-	-	-	-
Mongolia	8,996	3,227	6,462	2,754	7,961	3,148	6,799	3,597	5,427	2,288
Georgia	68	27	-	-	50	35	1,199	562	171	100
Iraq	200	49	-	-	20	5	-	-	-	-
Iran	300	71	204	58	-	-	-	-	-	-
UAE	1,346	372	-	-	-	-	-	-	40	13
Netherlands	-	-	-	-	-	-	-	-	20	7
Lithuania	-	-	42	16	-	-	-	-	-	-
Total	2,297,890	536,169	1,901,848	551,192	2,218,563	600,632	1,875,852	580,233	1,844,211	561,454

Notes: Drawn up by the authors based on data of the Committee on Statistics of the RK (Committee on Statistics of the Republic of Kazakhstan)

USD 78.6 mln in 2013. Kazakhstani flour export structure in 2014 is shown in Figure 3.

Flour export decrease is not attributable to seasonal fluctuations, but to safeguard actions. Uzbekistan imposed an imported flour excise duty amounting to 15% that resulted in export decline to this country. Besides, the Uzbek government does its best to support grain import to develop their mills. Tajikistan fixed an imported flour value-added tax (VAT) rate amounting to 18%, and an imported grain VAT rate – 10%. Then Kyrgyzstan followed them and imposed a protective duty amounting to KGS 3 per a kilo of flour. Afghanistan imposed restrictions as 16% duty of customs value of imported flour (Alshynbay, 2008).

The government is to take some complex measures to solve the situation. It refers to the export strategy to promote processed agricultural products to the external markets. It is necessary to develop both a system for promoting products to the external markets and a safeguard system.

Export market is the main constituent of the millers' business. The basic requirement for efficient flour mills operation is the formation of an effective pricing mechanism that will develop a pricing conceptual framework and the elaboration of an adjustable pricing mechanism on this ground.

This mechanism is to take into account the law of supply and demand that has no drawbacks of the planned pricing system (imbalance of manufacturing and consumption, noncompliance of inter-industry interests), on the one hand, and has advantages comparing to the spontaneous pricing market mechanism (unstable market prices and lack of stable economic growth), on the other hand.

Prices take on enormous importance in agriculture development. Economic efficiency of production, extended reproduction, remuneration and material encouragement of labour, balanced ratio of sectors depend on prices.

Farm prices, as opposed to prices in other sectors, are formed on the basis of socially necessary labour time and facilities needed for worse conditions of agrarian production. At the market economy prices include costs or product value, terms of goods exchange, supply and demand, market conditions, product quality, tax policy, intra- and inter-industry competition, and product competitiveness (Liberman, 2006).

Due to the above-mentioned market factors the price floats around the cost up and down.

Table 4 contains average prices for the staples in the Republic of Kazakhstan in terms of dollars at the exchange rate on January 01, 2015.

The data above show a yearly increase of prices for the top-grade wheat flour and bread produced from this flour.

Effective economic management requires settling a disparity between farm and industrial product prices that is done by fixing

Figure 2: Flour export behavior by countries, thousand tons

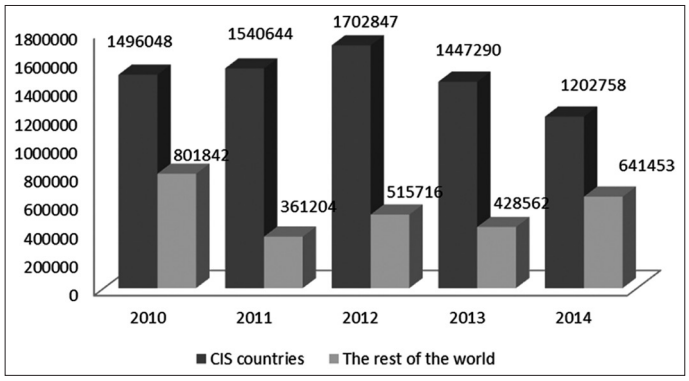


Figure 3: Kazakhstani flour export structure in 2014, %

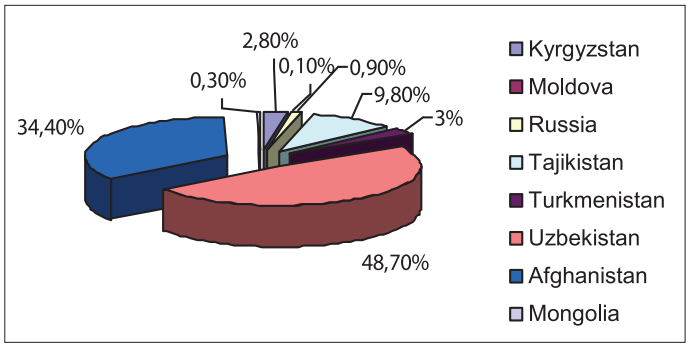


Table 3: Monthly flour export, thousand tons

Month	2010		2011		2010-2011 difference	2012		2011-2012 difference
	Thousand tons	Ratio, %	Thousand tons	Ratio, %	(thousand tons)	Thousand tons	Ratio, %	(thousand tons)
January	158.2	6.9	85	4.5	−73.2	182.7	8.2	97.7
February	187.8	8.2	88.4	4.6	−99.4	246.2	11.1	157.8
March	151.4	6.6	93.7	4.9	−57.7	232.1	10.5	138.4
April	205.2	8.9	87.3	4.6	−117.9	190.9	8.6	103.6
May	220.3	9.6	97.3	5.1	−123	251.3	11.3	154
June	263.8	11.5	94.9	5.0	−168.9	185.6	8.4	90.7
July	193.7	8.4	132	6.9	−61.7	182.3	8.2	50.3
August	202.1	8.8	165.9	8.7	−36.2	129.6	5.8	−36.3
September	211.2	9.2	176.9	9.3	−34.3	127.8	5.8	−49.1
October	177	7.7	287.2	15.1	110.2	219.7	9.9	−67.5
November	163.7	7.1	335.9	17.7	172.2	143.6	6.5	−192.3
December	163.4	7.1	257.4	13.5	95	126.8	5.7	−130.6
Total	2,297.8	100	1,901.9	100	−394.9	2,218.6	100	316.7

Table 4: Average prices for the staples in the Republic of Kazakhstan (USD/kg, at the exchange rate of the National Bank of the RK USD 1=KZT 182 as of January 1, 2015)

Staples	2010	2011	2010-2011 difference	2012	2011-2012 difference	2013	2012-2013 difference	2014	2013-2014 difference
Top-grade wheat flour	0.51	0.54	0.03	0.61	0.07	0.63	0.02	0.68	0.05
Bread (top-grade wheat flour)	0.7	0.79	0.09	0.83	0.04	0.85	0.02	0.91	0.06

Based on data of the Committee on Statistics of the RK (Committee on Statistics of the Republic of Kazakhstan)

the best ratio between the price state- and self-adjustment on the agricultural market, where the grain market is of strategic importance (Dodobayev et al., 2007).

The grain market expresses the totality of market relations with regard to the activity of the grain sub-complex of the agribusiness, resource sectors, grain farming, processing, storage and sale of end-products. It provides free transfer of grain and grain products, production means, services and scientific and technical achievements for the grain sub-complex both inside the Republic and in relations with the other states, that is, it makes the united area for competitiveness of grain producers and resellers in the agribusiness (Altaibaeva and Zhaltyrova, 2014).

Since the grain market price is determined by the supply and demand ratio, and supply has acute yearly fluctuations depending on climatic conditions and other factors, grain producers are not so much interested in high market price any year, as in its stability at different times. Stability is supported by minimum guaranteed protective prices for some grain types, purchased to the national resources, as well as state commodity purchasing interventions.

Flour prices are influenced by the conditions of the grain market, consumer markets, etc. Wheat and, as a consequence, flour prices are subject to seasonal fluctuations, decreasing at new harvest and increasing by the end of the season, when reserves are minimum. Flour prices are in direct correlation with grain prices. Flour prices increase in the period of high grain price growth, although prices for bread, as a socially important product, are to be unaffected. During this period bakeries have no profit; some of them operate in the red using raw materials available in stock (Salimzhanov, 2008).

The difference between raw materials and end-product prices along all distribution stages is inclined to grow. Bread prices artificially hold by the state make the business strategic management impossible in whole that finally damages the quality and variety of products. The situation can be settled by subsidizing the grain producers, and they will decrease grain prices.

In order to provide a favourable situation in the grain product market it is necessary to maintain a balanced ratio between purchase, wholesale and retail prices in the food chain: Grain supply price – grain storage and conditioning price – flour wholesale price – bread retail price. Some factors are required to establish stable price parity: Pricing state control excluding substantial fluctuations on some resources, and conditions ensuring development of reproduction processes (Shelomentseva and Davidenko, 2013).

3.2. Analysis of the Raw Materials Base of the Flour-milling Industry

Raw materials sectors of core branches of the food industry are characterized by a number of key indicators creating level and behavior of the major economic indicators of the food industry itself. For example, crop raw materials sector has the following indicators:

- Acreage, ha
- Yield, c/ha
- Crop page, thousand tons.

Grain farming is the core branch of crop farming in Kazakhstan. Kazakhstan ranks among the largest grain producers in the world. Over 80% of agricultural crop acreage has been used for grain crops in recent years.

Available land resources serve as a positive factor. Table 5 shows the grain and legumes acreage in the Republic of Kazakhstan in 2010-2014.

As compared to 2010 one may notice a yearly acreage decrease.

Grain yield is one of the key indicators of grain farming intensive development in the country. Data of the Committee on Statistics of the RK show that wheat yields in average amounted to 10.9%/ha in the Republic in 2014 (Table 6).

As compared to 2013 yield one may see 0.1 c/ha growth.

Average annual grain yield increase promotes growth of transportation and storage facilities deficit, difficulties at wheat export to traditional markets. The deficit of grain-carriers is estimated at 3,000 pieces, grain storage facilities – app. 2 mln tons. Table 7 shows grain and legumes croppage in the Republic of Kazakhstan in 2010-2014 (The Ministry of Agriculture of the Republic of Kazakhstan).

As compared to 2010, in 2011 we can see an increase in grain croppage amounting to 14,775.3 thousand tons, and in 2012 – 14,095.7 thousand tons decrease. In 2012 grain croppage was 12.9 mln tons, while in 2011 it was 27 mln tons in the Republic of Kazakhstan. Wheat ratio in total volume is 76% (9.8 mln tons). This is due to the fact that 2011 was a high-yield year, and 2010 and 2012 were dry years. In 2013 grain croppage amounted to 18,231.1 thousand tons (13,940.8 thousand tons wheat inclusive) (Agribusiness Development Program in the Republic of Kazakhstan 2013-2020 "Agribusiness-2020" 2013).

In general the grain industry is stable in Kazakhstan. As to food use of grains, the market experts forecast a slight growth of grain

Table 5: Grain and legumes acreage in the Republic of Kazakhstan (2010-2014)

Regions	2010		2011		2012		2013		2014	
	Thousand ha	Ratio, %	Thousand ha	Ratio, %	Thousand ha	Ratio, %	Thousand ha	Ratio, %	Thousand ha	Ratio, %
Total	16,619.1	100	16,219.4	100	16,256.7	100	15,877.6	100	15,291.5	100
Akmola	4,433.7	26.7	4,278.9	26.4	4,353.7	26.8	4,252.0	26.8	4,173.4	27.3
Aktobe	731.6	4.4	588.5	3.6	578.9	3.6	491.0	3.1	447.4	2.9
Almaty	480.0	2.9	470.5	2.9	450.5	2.8	444.9	2.8	447.3	2.9
Atyrau	0.1	0.0	2.1	0.0	0.5	0.0	0.5	0.0	0.4	0.0
West Kazakhstan	533.2	3.2	394.5	2.4	407.9	2.5	355.2	2.2	321.0	2.1
Jambyl	239.5	1.4	234.2	1.4	239.0	1.5	243.8	1.5	257.7	1.7
Karaganda	746.5	4.5	693.6	4.3	666.5	4.1	670.6	4.2	701.4	4.6
Kostanay	4,273.1	25.7	4,303.0	26.5	4,345.1	26.7	4,395.0	27.7	4,109.3	26.9
Kyzylorda	85.5	0.5	87.0	0.5	84.2	0.5	79.3	0.5	87.2	0.6
South Kazakhstan	213.2	1.3	213.1	1.3	186.4	1.1	218.0	1.4	239.8	1.6
Pavlodar	491.4	3.0	538.5	3.3	557.8	3.4	595.1	3.7	660.8	4.3
North Kazakhstan	3,901.0	23.5	3,894.3	24.0	3,841.5	23.6	3,572.2	22.5	3,273.7	21.4
East Kazakhstan	489.6	2.9	520.6	3.2	543.4	3.3	559.2	3.5	571.4	3.7
Astana city	0.4	0.0	0.3	0.0	0.9	0.0	0.8	0.0	0.6	0.0
Almaty city	0.3	0.0	0.3	0.0	0.3	0.0	0	0.0	0.1	0.0
Wheat inclusive	14,261.7	85.8	13,848.9	85.4	13,464.0	82.8	13,088.7	82.4	12,387.6	81.0

Table 6: Wheat yields in the Republic of Kazakhstan, 2010-2014 (centner/ha)

Regions	2010	2011	2010 difference	2012	2011 difference	2013	2012 difference	2014	2013 difference
Average in RK	7.3	16.6	9.3	7.9	−8.7	10.8	2.8	10.9	0.1
Akmola	5.1	15.5	10.4	7	−8.5	10.0	3.1	10.9	0.9
Aktobe	2.4	7.4	5	2.8	−4.6	5.2	2.4	4.8	−0.4
Almaty	18	19	1	16.3	−2.7	18.2	1.9	14.7	−3.5
Atyrau	0	0	0	0	0	2.9	0	0	0
West Kazakhstan	4.4	9.5	5.1	5.8	−3.7	7.1	1.3	8.8	1.7
Jambyl	14.6	15.4	0.8	8.6	−6.8	16.5	7.8	8.5	−8.0
Karaganda	4.6	10.8	6.2	6.5	−4.3	11.5	4.9	9.4	−2.1
Kostanay	7.3	18.3	11	6.1	−12.2	9.6	3.5	9.9	0.3
Kyzylorda	12.4	7.8	−4.6	4.7	−3.1	7.1	2.4	8.8	1.7
South Kazakhstan	14.7	14.1	−0.6	10.9	−3.2	19.4	8.5	13.2	−6.2
Pavlodar	5.7	7.6	1.9	3.8	−3.8	12.0	8.2	5.8	−6.2
North Kazakhstan	9.6	20.9	11.3	11.5	−9.4	12.4	0.9	13.8	1.4
East Kazakhstan	9.8	10.7	0.9	10.9	0.2	14.2	3.3	12.4	−1.8
Astana city	6.8	14.2	7.4	6.1	−8.1	7.4	1.3	5.8	−1.6
Almaty city	0	0	0	0	0	0	0	13.0	0

Table 7: Grain and legumes croppage in the Republic of Kazakhstan, 2010-2014 (thousand tons)

Regions	2010	2011	2010 difference	2012	2011 difference	2013	2012 difference	2014
Total, thousand tons	12,1850.2	26,960.5	14,775.3	12,864.8	−14,095.7	182,311	5,366.3	17,162.2
Akmola	2,141.9	6,597.6	4,455.7	2,822.0	−3,775.6	44,117	1,589.7	4,502.6
Aktobe	64.4	428.6	364.2	94.7	−333.9	2,126	117.9	143.4
Almaty	1,066.0	1,119.8	53.8	1,021.7	−98.1	1,103.9	82.2	1,046.5
Atyrau	0.0	0.3	0.3	0.0	−03	0.1	0.1	-
West Kazakhstan	76.3	347.3	271.0	129.3	−218.0	198.4	69.1	223.8
Jambyl	372.6	393.5	20.9	229.5	−164.0	480.0	250.5	288.6
Karaganda	293.9	709.6	415.7	403.4	−306.2	758.9	355.5	599.5
Kostanay	3,039.9	7,900.0	4,860.1	2,449.5	−5,450.5	4,267.5	1,818.0	3,987.5
Kyzylorda	328.2	301.0	−27.2	291.0	−10.0	295.1	4.1	323.8
South Kazakhstan	371.3	357.0	−14.3	282.6	−74.4	471.4	188.8	421.3
Pavlodar	232.1	384.9	152.8	168.5	−216.4	696.7	528.2	364.4
North Kazakhstan	3,730.4	7,879.4	4,149.0	4,391.1	−3,488.3	4,544.0	152.9	4,547.0
East Kazakhstan	467.7	540.9	73.2	580.9	40.0	790.2	209.3	713.4
Astana city	0.2	0.3	0.1	0.5	0.2	0.6	0.1	0.3
Almaty city	0.3	0.3	0.0	0.1	−0.2	-		0.1
Wheat inclusive	9,638.4	22,732.1	13,093.7	9,841.1	−12,891.0	13,940.8	4,099.7	12,996.9

Table 8: Estimated grain needs in the local market, 2015-2020

Index	2015	2016	2017	2018	2019	2020
Population, thousand people	17,362	17,602	17,852	18,112	18,382	18,662
Grain consumption rate per 1 person a year, kg	167	167	167	167	167	167
Food grain requirement, thousand tons	2,899	2,940	2,981	3,025	3,070	3,117

Table 9: Monthly grain export, 2010-2013 (thousand tons)

Month	2010	2011	2010-2011 difference	2012	2011-2012 difference	2013	2012-2013 difference
January	432.8	144.9	−287.9	922.5	777.6	280.9	−641.6
February	400.1	99.5	−300.6	768	668.5	387	−381
March	418.8	96.1	−322.7	925.1	829	279.5	−645.6
April	464.3	100.8	−363.5	863	762.2	440.3	−422.7
May	719.7	125.2	−594.5	1,094.3	969.1	376.9	−717.4
June	484.5	91.3	−393.2	844.7	753.4	504.8	−339.9
July	351.8	92.9	−258.9	593.1	500.2	335.1	−258
August	391.7	187.2	−204.5	445.1	257.9	227.5	−217.6
September	458.8	208.7	−250.1	392.8	184.1	418	25.2
October	577.3	582.0	4.7	371.6	−210.4	671	299.4
November	390.6	804.9	414.3	344.4	−460.5	713.4	369
December	401.8	960.0	558.2	296.9	−663.1	756.4	459.5
Total	5,492.2	3,493.5	−1,998.7	7,861.5	4,368	5,390.8	−2,470.7

Table 10: Priorities and solutions

Priorities	Solutions
Utilization of high-performance equipment	Implementation of energy-saving technologies providing deep grain processing, increasing output per grain unit
Diversification	Expansion of variety of grain deep processing products
Improvement of quality	Introduction of lines to fortify 1st and 2nd grade wheat flour with vitamins and mineral additives; implementation of the state-of-the-art technology at milling plants ensuring improved preparation of grain for milling and, thus, decrease of energy consumption and growth of output
Forecasting of demand and optimization of price policy	Market, variety, pricing research
Improvement of organizational structure	Work with employees, systems of labour remuneration and encouragement, personnel development (incl. operation of new equipment)

requirement for the next few years. Table 8 shows estimated grain needs in the local market for 2015-2020.

Grain crop page far exceeds domestic needs. Studying the general situation it should be noted that the country has a sky-high potential to raise its positions in the world market. Long-term trends in grain needs growth in the world market count in favor of Kazakhstani grain export development. Table 9 shows grain export behavior in the Republic of Kazakhstan.

Kazakhstani grain importing countries have no local grain due to climatic conditions. Chinese market is promising for Kazakhstani exporters: 124 thousand tons of grain was exported to China in 2013. At the moment the problem is in the lack of necessary logistic infrastructure and grain bagging requirements. JSC NC Food Corporation studies optimum options to export grain to China (Miller et al., 2015).

4. DISCUSSIONS

Social importance of the flour-milling industry requires stable plant operation. Kazakhstan rapidly develops its grain-processing industry. Grain processing means not only flour production, it includes motor and railway transport, internal and external commercial operations, electricity consumption, etc.

Equipment wear and tear, low capacity utilization rate, etc. hamper grain-processing plants. High equipment wear rate results in the increase of repair cost and, as a consequence, the increase of unit cost. The main challenges for the millers are the improvement of product quality, variety, financial independence and competitiveness.

Product quality depends on wheat no <80%, and the rest – on plant performance. Competitive products can be manufactured only from high quality grains, but capacity utilization is equally important.

When it comes to grain and flour export, a lot of problems come to light. It's getting more complicated to settle the situation without government support, and special complex measures are required to overcome these barriers (Salykzhanova, 2015).

5. CONCLUSION

Priorities and solutions for the flour-milling industry are presented in Table 10.

State support by subsidizing expenses for raw materials deep processing and product manufacture is expected in order to

develop agricultural raw materials processing branch, to improve the quality of products. Such state aid will make it possible to put on equal footing local processing plants and plants in the Customs Union.

Thus, the following points remain urgent in the grain processing industry: Technical and technological re-equipment, transition to international quality standards to improve local products quality, expansion of goods variety to create equal competitive positions with the main trade partners in the Customs Union. Investments to the flour-milling industry will improve product competitiveness both in the internal and external markets.

REFERENCES

Abuov, K.K., Gorelov, A.N. (2005), Cost Management Improvement at Farm Enterprises: Scientific Publication. Kokshetau: Publishing Center at the Kokshetau University.

Agribusiness Development Program in the Republic of Kazakhstan 2013-2020 Agribusiness-2020. (2013). Available from: http://www.tengrinews.kz.

Alshynbay, A.M. (2008), Market and Pricing: Teaching Aid. Almaty: Economika.

Altaibaeva, Z.K., Zhaltyrova, O.I. (2014), Costs Budgeting for Grain Processing as a Tool for Identifying the Reserves to Reduce Prime Cost of Flour. In Materials of the 8th International Scientific and Practical Conference "Russia and Europe: Links of Culture and Economy," Prague, February 28. p229-233.

Asylbekova, N.T. (2013), Food industry competitiveness analysis in the republic of Kazakhstan. The International Journal of Experimental Education, 8, 145-150.

Borbasova, Z. (2006), Export Potential of Kazakhstan on the World Grain Market. Vol. 1. Almaty: AlPari. p107-113.

Committee on Statistics of the Republic of Kazakhstan. (n.d), Available from: http://www.stat.kz.

Dodobayev, Y.T. (2007), Analysis of Agribusiness Economic Activity: Teaching Aid. Almaty: Economika.

Dugalova, G.N. (2008), Corporate Planning: Teaching Aid. Almaty: Almaty Kitapbaspasy.

Egorov, G.A. (2005), Flour Technology. Cereals Technology: Textbook. Moscow: Kolos Publishers.

Information Agency Kazakh Zerno. (n.d), Available from: http://www.kazakh-zerno.kz.

Joldasbayeva, G.K. (2006), Flour-Milling Industry State-of-the-Art. Vol. 1. Almaty: Alpari. p141-146.

Joldasbayeva, G.K. (2005), Bread Products Market Condition in the Republic of Kazakhstan. Vol. 2. Almaty: AlPari. p97-102.

Kuatova, D.Y. (2011), Economics of Enterprise: Teaching Aid. Almaty: Economika.

Liberman, I.A. (2006), Cost Management: Workbook. Moscow: Publishing Center Mart.

Miller, A.Y., Miller, N.V., Davidenko, L.M. (2015), Formation of integrated industrial companies under current conditions. Asian Social Science, 11(19), 70-81.

Processing Industry Development Master Plan in the Republic of Kazakhstan 2020, (2013). Available from: http://www.online.zakon.kz.

Salimzhanov, I.K. (2008), Pricing: Textbook. Moscow: KNORUS.

Salykzhanova, N. (2015), Kazakhstani Millers Risk to Lose the Export Market. Available from: http://www.liter.kz/ru/articles/show/6794.

Seidakhmetov, A.S., Kukva, I.N., Nurgaliyeva, K.K. (2006), Economic Appraisal of Agricultural Potential of the Agribusiness: Textbook. Almaty: Economika.

Shelomentseva, V.P., Davidenko, L.M. (2013), Integration processes on the basis of state private partnership (following the materials of the republic of Kazakhstan). World Applied Sciences Journal, 23(2), 224-230.

The Ministry of Agriculture of the Republic of Kazakhstan. (n.d). Available from: http://www.mgov.kz/.