



International Journal of Financial Management and Economics

P-ISSN: 2617-9210
E-ISSN: 2617-9229
IJFME 2023; 6(2): 148-153
www.theeconomicsjournal.com
Received: 16-09-2023
Accepted: 21-10-2023

Israrullah Yousafzai
Ph.D. Scholar,
Department of Agribusiness
Management, College of
Agriculture, University of
Agricultural Sciences,
Dharwad, Karnataka, India

RA Yeledhalli
Professor and Head,
Department of Agribusiness
Management, College of
Agriculture, University of
Agricultural Sciences
Dharwad, Karnataka, India

JS Sonnad
Professor and Uni. Head,
Department of Agribusiness
Management, College of
Agriculture, University of
Agricultural Sciences
Dharwad, Karnataka, India

GN Kulkarni
Professor, Department of
Agricultural Economics,
College of Agriculture,
University of Agricultural
Sciences Dharwad, Karnataka,
India

SL Patil
Professor, Department of
Agricultural Extension
Education, College of
Agriculture, University of
Agricultural Sciences
Dharwad, Karnataka, India

Corresponding Author:
RA Yeledhalli
Professor and Head,
Department of Agribusiness
Management, College of
Agriculture, University of
Agricultural Sciences
Dharwad, Karnataka, India

Relative comparative advantage and direction of trade of raisins from Afghanistan

Israrullah Yousafzai, RA Yeledhalli, JS Sonnad, GN Kulkarni and SL Patil

DOI: <https://doi.org/10.33545/26179210.2023.v6.i2.242>

Abstract

The study intended to examine the relative comparative advantage and direction of trade of raisins from Afghanistan. The secondary data was analyzed for the period of 2006-07 to 2020-21 and the statistical tools such as Nominal Protection Coefficient, Revealed Comparative Advantage (RCA) and Markov chain analysis was used for the study. The results showed that the lower nominal protection coefficient values for Russia and UAE were 0.71 and 0.83, respectively. Higher price of raisins in the international market compared to the domestic market indicated distinct comparative price advantage in favors of Afghanistan for the year 2022-23. RCA value range for Afghanistan was 452.21 to 1549.90 with its average RCA value of 1031.20 followed by Turkey and Iran 27.59 to 39.67 and 14.29 to 57.75 with their average RCA value of 32.21 and 28.17, respectively, Afghanistan had seen significant growth in its relative comparative advantage for raisin exports, there was fluctuating over the years but still remaining relatively high compared to the other countries. In case of transitional probability matrix for raisins exported quantity from Afghanistan. Russia, UAE, India and Turkey retained 72.03, 47.33, 35.83 and 13.11 per cent of their original share, respectively. Pakistan lost 44.30 per cent of its share to others countries, 29.55 per cent to Turkey and 12.30 per cent to Kazakhstan, India gain 100.00 per cent from other countries, 73.30 per cent from Iran, 69.48 per cent from Kazakhstan, 21.07 per cent from Russia, Turkey lost 55.24 per cent to other countries. Afghan raisins hold a significant place in the global market, they do face competition from raisins produced in other countries, such as Iran, Turkey, and the United States. The price of Afghan raisins can vary based on factors such as quality, availability, and global market conditions.

Keywords: Raisins, Afghanistan, nominal protection coefficient, relative comparative advantage, transitional probability matrix

1. Introduction

Agriculture plays an important role in the Afghanistan economy, 12 per cent of its area is arable area which includes irrigated and rain-fed land, and temporary fallow land, while only 2.7 per cent of its area is covered by the forest. A vast stretch of land area is 46.4 per cent by permanent pasture and 38.9 per cent of the land utilization under villages, mountains and rivers. Rain-fed wheat is an important cereal crop of Afghanistan and is the major crop produced and constitutes 89 per cent of consumption. Fruits including watermelon and melon, apricot, pomegranate and grapes are produced for domestic consumption. Dried fruit and nuts especially apricot and almond plays a significant role in exports in Afghanistan and earns a valuable foreign exchange.

Fruits trees in Afghanistan constitutes apple, pomegranates, apricots, mulberries, grapes and almonds; in 2020-21 almost 3.38 per cent of the arable land (265 thousand hectares) was under fruit cultivation. Grapes production was 993.4 thousand tons. Almost all farming households in the rural area have some fruit trees for self-consumption. In addition, orchards comprising fruits are also a major source of income for farmers in many region of the country and the majority of large size to medium size orchards are exclusively produced for needy demand for domestic markets.

The dried fruits and nuts sector has historically been one of Afghanistan's leading categories among agricultural exports. Afghan raisins, in particular, once held a dominant position in world market prior to Afghanistan being subsumed by war crisis in the 1980s.

Afghanistan produces a wide array of dried fruits and nuts (with many different varieties of raisins and almonds), with unique tastes that have attracted buyers throughout the region. This sector has played a critical role in economy of the country during the post-2001 reconstruction period, filling out Afghanistan's export basket and setting the foundations for a strong future export growth.

At present, Afghan exports of dried fruits and nuts are concentrated in a few regional markets, namely India and Pakistan. This leaves the sector with exciting opportunities to expand its export reach in both the East and the West, but this can only be accomplished with a concerted effort to develop a premium brand and address quality control and food safety issues.

Unlocking the full potential of Afghanistan's dried fruits and nuts sector will require improvements throughout the cultivation, harvesting and processing stages of their production. Following the targeted interventions along the value chain, the gains achieved in terms of volume and quality of production have implications beyond boosting exports. Dried fruits and nuts are often labour-intensive, with entire households and communities contributing to different activities along the value chain. Women often play a very significant role during the harvesting and processing stages, thereby elevating their status as contributors to household incomes.

Dried fruits production account for more than 2.9 million metric tons in 2020-21, and has seen a positive growth over the last decade. Dried grapes (raisins, Sultanas, and currants) remained the most produced dried fruit by volume, accounted for 1.2 million metric tonnes or 42 per cent of the global production. Table dates accounted for the next 35 per cent of total production, with over 1 million metric tonnes and also saw increasing growth pattern over the previous ten years with an average annual rise of 51,723 metric tonnes from 2010-11 to 2020-21.

Over the previous five years, the United States produced 16 per cent of the global share while, Turkey 16 per cent, and Iran 13 per cent led the world dried fruit production, Saudi Arabia and China accounting for 7 per cent and 5 per cent. Dried grapes, sweetened dried cranberries and prunes accounted for 46 per cent, 32 per cent and 14 per cent, respectively of US dried fruit production. Dried grapes accounted for 61 per cent of Turkish dried fruit production, followed by dried apricots 23 per cent, and dried figs 16 per cent.

Dried fruits are mostly produced in middle and high-income economies; over the past decade, production in both groups rose on an average by 33,900 and 26,300 metric tonnes per annum in middle and high GNI origins, respectively. Almonds and walnuts accounted for half of total tree nut estimated consumption worldwide in 2019, 30 per cent and 20 per cent, respectively followed by cashews and pistachios which accounted for 18 per cent and 15 per cent respectively.

Following Europe as the leading consumer, Asia and North America were the second and third largest consuming nations, with similar market shares. Regarding global dried fruit consumption, dried grapes (raisins, Sultanas, and currants) accounted for 44 per cent of the total in 2019; and combined with table dates added up to 74 per cent. The Middle East, Europe and Asia were the top dried fruit consuming regions, with 29 per cent, 24 per cent and 20 per cent of the total share, respectively. In the period 2010-

2019, both tree nuts and dried fruit were mainly consumed in high and middle-income economies with 56 per cent and 39 per cent of the world share for tree nuts 51 per cent and 48 per cent for dried fruits in 2019, while peanuts were mostly consumed in middle-income countries which represented a 91 per cent of the global share.

The production of dried grapes (Raisins, Sultanas, and currants) in 2019-2020 reached over 1.2 million metric tons. Turkish production accounted for 22 per cent of the global share, followed by the United States, Iran, and India, with shares ranging from 16 per cent to 12 per cent. Within 8 per cent to 3 per cent range the top producing countries were China, Uzbekistan, Chile, South Africa and Argentina.

Total dried grape exports reached around 860,000 metric tons in 2019, the highest value in the previous ten years. Turkey remained the leading exporting country, accounting for 31 per cent of global exports, followed by Iran, the United States, and Uzbekistan, each with 9 per cent. The European Union and the United Kingdom accounted for 76 per cent of Turkish exports, with the UK 27 per cent of the country share, Germany 12 per cent, and the Netherlands 10 per cent being the largest importers. The Middle East 36 per cent and the EU + UK 24 per cent were Iran's top destinations. The bulk of US exports were bounded for Japan 26 per cent, the EU + UK 15 per cent, and Latin America 12 per cent. On one hand, global demand for dried fruits and nuts is expected to continue expand, driven by increasing consumption in Europe and Asia. This is promising for the Afghan sector because of Afghanistan's proximity to large Asian markets. Moreover, access to both European and Asian markets have improved with the opening in 2017 of an air cargo corridor with India and a ground corridor to the Islamic Republic of Iran's Chabahar Port. Better access to air shipping will not only improve timely delivery of products but also reduce spoilage.

Materials and Methods

The study on relative trade advantage and direction of trade of raisins from Afghanistan was purposively taken up in all Afghanistan level. The secondary data on relative trade advantage and direction of trade of raisins were used to analyse the Nominal Protection Coefficient, Revealed Comparative Advantage and direction of trade of raisins. The time series data for direction of trade of raisins was available from 2010-11 to 2020-21. The data pertaining to export of raisins was obtained from different website such as Dried Fruits and Nuts Sector, Central Statistics Organization (CSO), Afghanistan statistical yearbooks, International Trade Centre (ITC), Food and Agricultural Organization (FAO) and other related sources. For the analyses of relative trade advantage and direction of trade RCA, NPC and Markov Chain were employed. A minimum of ten years' data was selected for the study period.

Export competitiveness

Nominal Protection Co-efficient

Nominal Protection Co-efficient (NPC) of Afghan raisins was estimated for the year 2022-23 in order to examine its export competitiveness in the world markets.

Nominal Protection Co-efficient is a direct measure of competitiveness of a country towards in the context of free trade. The Nominal Protection Co-efficient (NPC) is defined the domestic price to world reference price of the commodity under consideration.

Symbolically

$$NPC = \frac{Pd}{Pr}$$

Where,

NPC = Nominal Protection Co-efficient

Pd = Domestic price of the commodity in question

Pr = World reference price of the commodity in question *i.e.*

What the farmer would have received in case of free trade.

NPC can be estimated under two main hypotheses *i.e.* under importable hypothesis and exportable hypothesis. A decision criterion is, if NPC is less than one, then the commodity is competitive (under importable hypothesis it is considered as a good import substitute and under a good exportable hypothesis, it is worth exporting) if NPC is greater than one, the commodity is not competitive (not a good import substitute or not worth exporting), the domestic price is normally the wholesale market price of the commodity in the selected market, the reference price is international price adjusted for transfer cost, market and trading margin including the processing charge necessary to make the commodity equivalent in the international traded commodity.

NPC < 1 an efficient import substitute

Under exportable hypothesis.

NPC < 1 an efficient import substitute

In the present study, Nominal Protection Coefficient (NPC) was estimated under exportable hypothesis for the year 2015-16, Nominal Protection Co-efficient and international reference in the case of exportable hypothesis are calculated.

Revealed Comparative Advantage (RCA)

In this study, Revealed Comparative Advantage (RCA) has been used to compute comparative advantage on the basis of a country's specialization in exports relative to some reference group countries. The Revealed Comparative Advantage (RCA) index is measured by this formula

$$RCA = \ln \left[\frac{X_{iB}/X_B}{X_{iA}/X_A} \right]$$

Where,

X_{iB} : Exports of the particular good from the country

X_B : Total export of the country

X_{iA} : Export of the particular goods from the world

X_A : Total exports of world

If the RCA value is positive, then it is interpreted that India has comparative advantage over its competing countries. Negative value of RCA indicates that rivaling countries has comparative advantage against Afghanistan in particular commodity export.

Direction of foreign trade

In order to study the direction and composition of export of raisins, Markov Chain Analysis was employed. Annual export data for period 2010-11 to 2019-20 were used to analyse the direction of trade and changing pattern of raisins

export. Estimation of the exports was done for the study period using Markov chain analysis.

The Markov chain analysis is employed to analyse the structural change in any system whose progress through time can be measured in terms of single outcome variable. In the present study, the dynamic nature of trade patterns that is the gains and losses in export of raisins in major importing countries was examined using the Markov chain model. Markov chain analysis involves developing a transitional probability matrix 'P', whose elements, P_{ij} indicate the probability of exports switching from country 'i' to country 'j' over time. The diagonal element P_{ij} where $i=j$, measures the probability of a country retaining its market share or In other words, the loyalty of an importing country to a particular country's exports.

In the context of current application, structural change was treated as a random process with seven importing countries for raisins with the assumption that the average export of raisins from Afghanistan amongst importing countries in any period depends only on the export in the previous period and this dependence is same among all the periods. This is algebraically expressed as

$$E_{jt} = \sum_{i=1}^n [E_{i,t-1}] P_{ij} + e_{jt}$$

Where,

E_{jt} = Exports from Afghanistan to the j^{th} country in the year t

$E_{i,t-1}$ = Exports of i^{th} country during the year t-1

P_{ij} = The probability that exports will shift from i^{th} country to j^{th} country

e_{jt} = The error term which is statistically independent of $E_{i,t-1}$

N = The number of importing countries

The transitional probabilities P_{ij} , which can be arranged in a (c x n) matrix, have the following properties.

$$\sum_{i=1}^n P_{ij} = 1 \text{ and } 0 \leq P_{ij} \leq 1$$

Thus, the expected export share of each country during period 't' is obtained by multiplying the exports to these countries in the previous period (T-1) with the transitional probability matrix. The probability matrix was estimated for the period 2010-11 to 2019-20.

Thus transitional probability matrix (T) is estimated using linear programming (LP) framework by a method referred to as minimization of Mean Absolute Deviation (MAD).

Min, $OP^* + I e$

Subject to,

$X P^* + V = Y$

$GP^* = 1$

$P^* \geq 0$

Where

P^* is a vector of the probabilities P_{ij}

O is the vector of zeros

I is an appropriately dimensional vectors of areas

E is the vector of absolute errors

Y is the proportion of exports to each country.

X is a block diagonal matrix of lagged values of Y

V is the vector of errors

G is a grouping matrix to add the row elements of P arranged in P* to unity.

Results and Discussion

Table1 presents the results of nominal protection coefficient of raisins in international markets. The results showed lower nominal protection coefficient values for Russia and UAE 0.71 and 0.83, respectively. The remaining countries India, Pakistan Turkey, Kazakhstan and Iran showed values of 0.99, 0.95, 0.97, 0.94 and 0.95, respectively and all the markets exhibited less than one for the year 2022-23 indicating Russia and UAE were highly export competitive than India, Pakistan Turkey, Kazakhstan and Iran, higher price of raisins in the international market compared to the domestic market indicated distinct comparative price advantage in favour of Afghanistan during the year 2022-23. The same result was obtained by (Abinaya *et al.* 2023) ^[1] for major copra markets in India. Afghanistan need to extend the export of raisins to different countries and make the diversification of markets in international level.

Relative comparative advantage of raisins export from top countries are computed for the period from 2006-07 to 2021-22 and the results are presented in Table2. During the period considered under study, RCA for raisins of top exporter countries like Afghanistan, Turkey, USA, Iran, Chile, South Africa, China, Greece, Argentina, Netherlands and Germany. The range for Afghanistan 452.21 to 1549.90 with its average RCA value 1031.20 followed by Turkey and Iran 27.59 to 39.67 and 14.29 to 57.75 with their average RCA value of 32.21 and 28.17, respectively. USA, Chile, South Africa, China, Greece, Argentina, Netherlands

and Germany. range of RCA were 1.51 to 2.67, 15.94 to 23.94, 3.65 to 16.83, 0.14 to 0.52, 12.71 to 27.49, 5.28 to 13.73, 0.43 to 0.68 and 0.17 to 0.26, respectively and their average RCA value were registered at the rate of 2.23, 20.09, 10.21, 0.33 18.92, 8.06, 0.57 and 0.21, respectively. Afghanistan had seen significant growth in its relative comparative advantage for raisin exports, fluctuating over the years but still remaining relatively high compared to the other countries, after Afghanistan, Turkey has consistently maintained a strong position in raisin exports, with a relatively high comparative advantage throughout the years compared to other countries

Iran, Chile, South Africa, and Greece, have shown variability in their comparative advantage over the years, with fluctuations but generally maintaining a presence in the raisin market. Afghanistan, Turkey, and Iran have higher comparative advantages, while countries such as China, Germany, and the Netherlands have lower average comparative advantages in this period due to the global markets shifts in demand, agricultural policies and international trade dynamics was the main reasons for these countries.

The same results were obtained by (Sunil *et al.* 2023) under the title of export performance and comparative analysis of onion-with reference to India. In case of raisins some countries had advantages in terms of climate, technology and labour, contributing to their higher relative comparative advantage especially for Afghanistan term of climate and labour contribution in production.

Table 1: Export competitiveness of raisins from Afghanistan (2022-23)

Sl. No	Particulars	Unit	India	Russia	Pakistan	Turkey	Kazakhstan	UAE	Iran
1	Wholesale price (Chabahar port)	AF./QTL	23500	23500	23500	23500	23500	23500	23500
2	Marketing margin (5%)	AF./QTL	1175	1175	1175	1175	1175	1175	1175
3	Port clearing & handling charges	AF./QTL	350	350	350	350	350	350	350
4	FOB Price (1+2+3)	AF./QTL	25025	25025	25025	25025	25025	25025	25025
5	Freight charge	AF./QTL	450	480	350	480	300	380	250
6	Insurance at 2% of price	AF./QTL	500.5	500.5	500.5	500.5	500.5	500.5	500.5
7	Landed cost (4+5+6)	AF./QTL	25975.5	26005.5	25875.5	26005.5	25825.5	25905.5	25775.5
8	Exchange rate	US\$ =Af.	89	89	89	89	89	89	89
9	CIF price (row 7 / row 8)	US\$ /QTL	291.86	292.20	290.74	292.20	290.17	291.07	289.61
10	Reference price	US\$ /QTL	293.75	410.00	305.00	300.00	310.00	350.00	305.00
11	NPC of (row 9/row 10)		0.99	0.71	0.95	0.97	0.94	0.83	0.95

Note: FOB: Freight on Board; CIF: Cost, Insurance and Freight

Table 2: Relative comparative advantage of raisins (2006-07 to 2020-21)

Year	Afghanistan	Turkey	USA	Iran	Chile	South Africa	China	Greece	Argentina	Netherlands	Germany
2006-07	558.13	39.67	2.39	23.47	15.94	8.15	0.37	27.09	6.17	0.57	0.17
2007-08	452.21	35.87	2.28	23.65	16.12	10.58	0.36	20.78	8.01	0.49	0.19
2008-09	788.91	30.21	2.67	14.29	23.94	8.97	0.38	24.49	6.69	0.48	0.26
2009-10	1199.76	36.18	2.50	28.72	19.40	7.71	0.49	27.11	5.28	0.43	0.21
2010-11	1246.08	33.79	2.39	26.12	18.24	9.00	0.41	23.81	6.36	0.45	0.23
2011-12	1549.90	36.62	2.65	21.55	20.03	3.65	0.52	27.49	7.28	0.54	0.24
2012-13	953.32	33.22	2.42	26.00	21.83	6.62	0.35	21.14	7.70	0.64	0.22
2013-14	858.66	30.06	2.34	30.80	23.42	7.85	0.36	15.48	8.23	0.65	0.22
2014-15	1420.19	30.51	2.54	28.66	23.62	8.97	0.32	15.55	5.60	0.58	0.21
2015-16	1349.41	28.66	2.15	40.49	20.65	13.08	0.24	13.50	8.11	0.57	0.20
2016-17	876.52	27.59	2.05	33.18	18.69	12.01	0.27	12.71	8.53	0.65	0.22
2017-18	980.85	28.61	2.19	18.32	19.27	12.26	0.14	14.19	9.28	0.55	0.19
2018-19	1123.71	30.83	1.80	16.71	21.63	16.83	0.19	13.60	13.73	0.56	0.17
2019-20	975.70	30.65	1.51	32.89	20.57	12.67	0.29	13.71	10.54	0.66	0.19
2020-21	1134.71	30.70	1.61	57.75	18.04	14.75	0.21	13.10	9.46	0.68	0.25
Mean	1031.20	32.21	2.23	28.17	20.09	10.21	0.33	18.92	8.06	0.57	0.21

Note: If RCA < 1: Comparative Disadvantage, RCA = 1: Comparative Neutral, RCA > 1: Comparative Advantage

The transitional probability matrix for quantity of raisins exported from Afghanistan during the period 2010-11 to 2020-21 are presented in the Table 3. The major importing countries are India, Russia, Pakistan, Turkey, Kazakhstan, UAE, Iran and the remaining importing countries are pooled under the group of others. Russia, UAE, India and Turkey retained 72.03, 47.33, 35.83 and 13.11 per cent of their original share, respectively. Pakistan lost 44.30 per cent of its share to others countries, 29.55 per cent to Turkey and 12.30 per cent to Kazakhstan, India gain 100.00 per cent from other countries, 73.30 per cent from Iran, 69.48 per cent from Kazakhstan, 21.07 per cent from Russia, Turkey lost 55.24 per cent to other countries.

The same results were obtained by (Sanket and Sekhon 2020) for mango export from India for two sub period (1995-96 to 2005-06) and (2006-07 to 2017-18). Afghan raisins were traditionally being popular in the Indian market due to their high quality and unique taste. Indian consumers have a long history of consuming dried fruits as snacks, ingredients in various dishes, and as part of religious and cultural practices. This had created a consistent demand for high-quality raisins. Afghan raisins are often considered to be of high quality due to factors such as climate, soil conditions, and traditional cultivation methods. Consumers in India appreciate the rich flavor and unique characteristics of Afghan raisins. Dried fruits are an integral part of Indian festivals, celebrations, and religious offerings.

The availability of Afghan raisins in the Indian market depend on factors such as geopolitical situations, trade agreements, and transportation links between Afghanistan and India. While Afghan raisins hold a significant place in the Indian market, they do face competition from raisins produced in other countries, such as Iran, Turkey, and the United States. The price of Afghan raisins can vary based on factors such as quality, availability, and global market conditions. Consumers in India are generally price-sensitive, so pricing strategies play a role in determining market success. Import regulations and policies can impact the trade of Afghan raisins in India.

Exporters need to adhere to India's import regulations, quality standards, and any applicable tariffs. Building brand awareness and effective marketing can help Afghan raisins producers and exporters stand out in the Indian market. The unique characteristics and health benefits of these products could be a strategic approach. The India and Afghanistan air freight corridor connecting Kabul and New Delhi to promote bilateral trade. India and Afghanistan established a direct air freight corridor connecting Kabul to New Delhi in June 2017. Since then, the corridor also expanded to the Kandahar-New Delhi sector. Later on, Afghanistan started a new export route through Iran's Chabahar port that marked the first end-to-end use of the trade route for Afghan exports to different contraries especially for India.

Table 3: Transitional probability matrix of raisins export from Afghanistan during 2010-11 to 2020-21

Countries	India	Russia	Pakistan	Turkey	Kazakhstan	UAE	Iran	Others
India	0.35829	0.01040	0.29326	0.10821	0.18548	0.03469	0.00967	0.00000
Russia	0.21066	0.72030	0.00000	0.04770	0.00000	0.00000	0.00000	0.02134
Pakistan	0.00000	0.08206	0.00000	0.29549	0.12303	0.00000	0.05642	0.44300
Turkey	0.04038	0.02583	0.22266	0.13107	0.00000	0.01690	0.01080	0.55237
Kazakhstan	0.69477	0.00000	0.29687	0.00000	0.00836	0.00000	0.00000	0.00000
UAE	0.00000	0.00000	0.00000	0.00000	0.03490	0.47327	0.49183	0.00000
Iran	0.73299	0.00000	0.00000	0.00000	0.00000	0.26701	0.00000	0.00000
Others	1.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Conclusion

The study reveals Afghanistan's significant and growing comparative advantage in the raisin export market. With lower nominal protection coefficient values and a distinct comparative price advantage, Afghanistan has demonstrated consistent growth in relative comparative advantage for raisin exports. The Revealed Comparative Advantage (RCA) values indicate a strong position for Afghanistan compared to other countries like Turkey and Iran. The Markov chain analysis illustrates the stability and retention of market share by key importing countries, highlighting Afghanistan's importance in the global raisin trade. Despite facing competition from other raisin-producing nations, Afghanistan's agriculture, particularly in the dried fruits and nuts sector, continues to play a vital role in the economy, contributing to foreign exchange earnings and supporting rural livelihoods.

References

- Abinaya R, Easwaran RS, Shivakumar KM, Prahadeeswaran M, Raja N. Spatial market integration of major copra markets in India. *Asian Journal of Agricultural Extension Economics & Sociology*. 2023;41(9):568-574.
- Birol E, Kazm S. Comparative analysis of the competitiveness in the export of science-based goods regarding Turkey and EU+13 countries. *International Journal of Business and Social Sciences*. 2014;5(8):117-130.
- Elyas N, Nassir UH. Export competitiveness of Afghanistan and Pakistan. *An Economics Evaluation*. 2020;3(2):1-12.
- Jagdamba S. Analysis of Export competitiveness of indian agricultural products with ASEAN Countries. Working Paper. 2016;356:1-24.
- Josily S, Basavaraj H, Pushapanjali, Rejani R. Production, growth and export competitiveness of raw cotton in India-An economic analysis. *Journal of Agricultural Research and Technology*. 2015;1(1):1-5.
- Kerobim L, Lokesh K, Shoji L, Saket K. Comparative advantage in export of major agricultural commodities in India: A post reforms analysis. *Economics Affair*. 2014;59(2):107-116.
- Sanket C, Sekhon MK. Trade direction and

- competitiveness of mango export from India. *Journal of Agricultural Development and Policy*. 2020;30(2):40-49.
8. Sukhpal S, Kingra HS, Sumit B. India's foreign trade of agricultural products in free market economy. *Indian Journal of Economic Development*. 2018;41(2):18-98.
 9. Suresh A, Mathu VC. Export of agricultural commodities from India: Performance and prospects. *Indian journal of agricultural sciences*. 2016;86(7):876-83.
 10. Tyagi S. Composition, intensity and revealed comparative advantage in Sino-Indian bilateral trade. MA Economics Thesis., University of Banaras, Hindu, Institute of Chinese Studies, Delhi, India; c2014.