

## Diversification of Export of Indian Raw-Hide and Skin

Shally

Research Scholar (Economics), Department of Economics, Kurukshetra University, Haryana, India.

\*Corresponding Author

Shally

Email: [shallyujjawal87@gmail.com](mailto:shallyujjawal87@gmail.com)

**Abstract:** Leather and leather product is a pioneer whether we talk about domestic or international market. It is an important non-farm activity employing, landless, small and marginal farmers in rural area and even urban youth. It employs not only 2.5 million workforce but also thirty per cent of the women workforce. Raw-hide and skin is the basic raw-material which is converted into finished leather by a process called tanning. It is a by-product of meat and milk production whose export helps in earning huge forex. Mainly shudra or chamars in the past used to get engaged in flaying of raw hide and skin but in contemporary India youth of all caste started getting engaged in this activity. The present paper had tried to analyze through the use of entropy and ogive index as to whether diversification or concentration of raw-hide and skin had increased or decreased during the period 1990-91 to 2013-14 for major fifty-five countries of the world.

**Keywords:** Exports, globalization, diversification, concentration, rural non-farm employment.

### INTRODUCTION

Rural non-farm employment in contemporary world plays an important role for the landless, small and marginal farmers. It can play an important role in reducing the rural poverty by providing employment to rural youth. By engaging in leather and leather products manufacture is an important non-farm activity which engages small and landless farmer. Stripping of raw hide and skin from dead animals in rural area and in modern slaughter and tanning centres can play an important role in manufacture of finished leather product like leather shoes, handbags and many leather accessories. This finished as well as raw hide and skin is later exported to various countries like European Union, Germany, Italy, USA etc. for earning forex thus accelerating the inclusive and faster growth path by employing rural and urban skilled labour force. Leather industry thus today occupies a pioneer place both in domestic and global market. Leather sector not only provides employment to approximately 2.5 million people but also provides employment to roughly thirty per cent of the women workforce. The basic raw-material for leather and leather exports is hides and skins. It is converted in later stage to finished leather by a process called tanning. Tanning is a process of conversion of raw hide and skin into finished leather products.

At primary stage or level, the production of hides and skins starts with a butcher or individual or small and marginal farmer in the community. In the past or ancient time the work of stripping of raw hide and

skin was restricted to village with mostly 'chamars' often known as 'rangia' literally dyer associated with the profession. These workers stripped or flayed dead animals of their village and later made up shoes or drum heads for use for the people. The leather industry was based on Jajmani system where people associated with the stripping or flaying of raw-hide and skin used to sell manufactured/finished product used to sell finished product to the Jajmans or Brahmans. Slowly and gradually, when the supply exceeded than demand for hide and skin then urban based tanners or good manufacturers were contacted. It thus started meeting the demand of the city people, army and police requirements. It thus enter into value-addition chain.

The leather workers often called 'shudras' or chamars usually acted as slaves in some castes in their villages. They used to even perform household chores or agricultural activities by both men and women of Shudra or charmar castes besides stripping of raw hide and skin.

In 1900, extraordinary rise in world prices of hide and skin which adversely affected village tanners as Jajmans started selling skins of their dead animals to chamars. Chamars being poor, were not able to purchase hide and skin and thus started shifting to modern tanneries in urban areas. They also now started getting engaged in full time agricultural activities due to their poor and downtrodden conditions.

In liberalized economies like India, there are almost nil or few restrictions in trade of hides and skins.

Also the number of hide and skin players are large in number in present scenario. But at the same time it is seen that there is a decline in the number of persons engaged in the activity due to social stigma connected with the stripping of raw hide and skin. Rapid techno-economic situation also worsened the situation with respect to persons engaged in the activity of flaying of raw hide and skin.

Although there is huge loss of hide and skin due to indiscriminate practice of branding. In order to identify their animals, branding of animals is done by hot irons or by putting a permanent mark on their skin. Infestation of ticks on livestock, insensitive method of slaughtering in slaughter houses, homestead slaughter, bacterial damage on livestock skin, insect infestation after stripping of hide and skin, shortage of tanning skins in the country etc affect the quality of hide and skin in India. However, parts of India where government provided financial support, training facility for youth and necessary infrastructure facility, this activity has flourished whether rural or urban area. Various steps have been taken by government as policy initiatives like free OGL import of raw hide and skins and chrome tanned as well as crust leather and finished bovine leather to augment the domestic availability of these items.

Leather industry is a thrust sector. The export earnings have increased significantly in the sector. For attaining growth, there is a need to increase export of Indian leather and leather products. There is huge demand for Indian leather and raw-hide and skin abroad. The present paper had tried to analyze through use of entropy and ogive index as to whether diversification or concentration of export of raw hide and skin had increased or decreased during the period 1990-91 to 2013-14 for fifty-five major countries of the world.

## REVIEW OF LITERATURE

The review of literature is focusing on export of leather and leather products from India.

This study will be dealing with export of leather and leather products in India so this study will review literature in terms of export performance of leather in India.

In 1970, NCAER[5] completed a very seminal work whose objectives were mainly to find the prospects of exports of Indian footwear industry besides necessary measures which government of India ought to take to achieve its targets. This seminal work stresses on promotion of export of Leather footwear industry for earning forex. Footwear industry has high value-addition as per their study. Various factors were

identified which can add to comparative strength and affect world trade of footwear market like preference of consumer, pricing policy and various distribution arrangements, competition between domestic and foreign exporter, import policy, term of sale and system of advertisement. Further the seminal work suggested vertical integration of footwear industry and to improve quality through adoption of production designs which match the European standards.

Murugesan and Subramaniam [5] remark that Indian leather industry is the oldest and traditional industry which is highly export oriented. They stresses on timely investment on finished leather and quality goods promotion so that India can continue as a major supplier of raw-material. Further their study stresses on knowing the market potential for Leather products besides product-wise analysis which reveals heavy demand in international market for footwear and semi-finished products.

Kumar [3] in his paper has analyzed the trend in India's export of leather products in last few years. His study reveals that in international market, especially in developed countries there has been a great increase in the demand for leather and leather goods. It is due to the fact that tanning operations are being discouraged due to rising pollution problem and increased labour cost in developed countries. India thus can take benefit of this situation due to availability of huge livestock population. He suggests various steps like financial incentive, modern design and quality control and expansion of production base besides adoption of genuine export strategy and its implementation with firm determination.

Deolankar [1] in his paper highlighted or stressed on the various constraints or problems in rural leather industries. According to his study major footwear leather industries are usually located far away from tanning centres. As a result of it, there is difficulty in physical contact which is one of the major problems in manufacture of leather products. Cottage and small scale sectors usually meet the large demand for leather footwear and various leather products. Attitude and consumer tastes and preference should be kept in mind when selling or exporting a new leather product abroad. A leather product which is largely demanded in domestic market must not always be demanded in international market. There is need for widening of the production base and diversification of raw-hide and skin as well as finished product. This can be achieved by high quality urban based exports.

Seetharamiah [7] in his report of the committee stressed on considering the impact of export ceiling on short and long-term earning of forex.

Committee further examined the need for reducing the export of East India tanned and chrome tanned raw-material i.e. hide and skin. The report further suggested need for switch over of export from semi-finished hide and skin to manufactured or finished leather besides putting restrictions on export of semi-processed leather products.

Sengupta [8] carried out a significant project which was sponsored by ICRIER. In her findings she notices that India despite ample availability of skilled workforce and huge raw-material still do not capture a major share of world market in leather goods. She tries to find out the major loopholes and lacuna in government policies and social measures that hindered the development of leather industry. She further tries to identify the various factors which were responsible for slow rate of penetration of Indian leather product in international market.

Sahasranaman [9] in his paper analyses the potentiality of export of Indian leather and leather products. According to his study, the import and export profile of importing countries differ significantly. He classified the world into various categories like US, Canada, Norway, Sweden, Germany, France, UK, China, Spain, Portugal, Taiwan, India, Turkey, Mexico etc. He kept in his mind various factors like level of wages, cheaper imports, reluctance of workers to join the industry, demand pattern for leather whether semi-finished or finished and semi-industrial products such as shoe uppers in varying degree. According to his study, there is immediate and urgent need of attention in various areas like import of raw-materials, modernization, growth of ancillary units, skilled and trained workforce, machinery sector and design development. For steady development of leather industry there is need of clearly demarcated strategy which accelerate the growth path of leather industry.

Rai and Reddy [6] hold that in the export kit of India Leather export is the major item. Due to rising international competition and slackening or reduction in demand in various countries that export of leather from India have been showing a fluctuating trend. India has the added advantage of good quality raw-material base to various countries unlike exports of countries like Brazil, Taiwan, Italy and Korea which have poor raw-material base. He stresses on upgradation of technology besides ensuring smooth or good marketing of leather products like buy back arrangements with foreign collaborations. According to his study, big organization should take the responsibility for securing huge orders and developing necessary infrastructure facilities to execute them in number of units. India should explore the new markets abroad.

Sinha and Sinha [10] in their study attempt to analyze the performance of export of Indian leather industry. Their study further tried to determine the constraints or problems in future prospect of growth in the light of policy measures. The author believes that leather industry attracts or lures many leather traders to undertake small scale production for export due to low investment and high turnover in this sector or industry. The entry of these new exporters has a adverse or negative effect on India's export market. It is due to the reason that the motivation is to harness the export incentive and capital building in short span of time.

Gupta [2] in his paper has tried to analyze the global demand for leather footwear and to analyze the trend of import of leather footwear in ten major countries of the world. His study reveals that there has been a substantial increase in export of leather footwear to 60.2 per cent from 1983 to 1987. The percentage share of leather footwear export in total world export of leather and leather products has declined from 51.4 per cent to 45.8 per cent. In developed countries like USA, UK and France leather footwear export has increased. However, in case of some countries like USSR, Denmark and Netherland export declined which need rethinking and reorientation. Government thus should frame appropriate strategy and should provide various facilities for import of raw-material, machinery equipments and consumables.

#### **OBJECTIVES OF THE STUDY**

The objective of the study is aimed at comprehending the status of India's trade of leather and leather products in the global market. The specific objectives are following:

1. To analyze India's position and growth trend in the global trade of raw hides and skin.
2. To examine the stability in the exports of leather at the global level.
3. To explore the problems and prospects in the exports of leather and leather products.

#### **SOURCES OF DATA**

The study will be mainly based on secondary data available from various authentic government sources. Most of the data will be collected from Foreign Trade Statistics of India, Directorate General of Commercial Intelligence and Statistics (DGCI & S), Ministry of Commerce, Government of India, New Delhi. Besides these sources, websites of FAO, DGCI & S etc, will be used to analyze the current scenario of exports of raw hides and skins (ITCHS Code 41) excluding fur skins, of India during the period 1990-91 to 2013-14 for fifty-five major countries, namely, Hongkong, Italy, China P RP, Vietnam, Korea RP, Malaysia, Spain, Germany, Thailand, Turkey, Indonesia, Netherlands, South Africa, Portugal, Russia,

USA, France, Bangladesh PR, Japan, Czechoslovakia, Cambodia, Norway, Korea DP RP, U Arab Emirates, Poland, Taiwan, Sri Lanka DSR, Philippines, UK, Austria, Hungary, Singapore, Morocco, Tunisia, Ukraine, Lithuania, Australia, Pakistan IR, Israel, Dominic REP, Myanmar, Canada, Jordan, Slovenia, Gautemala, Angola, Belarus, Romania, Ethiopia, Greece, Mexico, Nigeria and Lao DP RP.

### METHODOLOGY

The present research work will be primarily an analytical and critical study of the figures related to the performance of India's leather and leather products in global market for the period 1990-91 to 2013-14. The exports of leather and leather products are contributing significantly in the domain of Indian exports and play a vital role for the overall economic growth and sustainable development of the Indian economy. To achieve the various objectives of the study, some mathematical and statistical tools like, entropy index and ogive index are used in the present study.

### ENTROPY INDEX

The Entropy (ENT) Index traditionally used in sciences, communication, business, finances, and economics represent the diversity or spread of a distribution, and indicates extreme specialization or concentration in one commodity.

The index is expressed as follows

$$ENT = - \sum_{i=1}^N (P_i \log_2 (1/P_i))$$

Where  $P_i$  is the actual share of the  $i^{\text{th}}$  country ( $x_i$ ) in total exports ( $X = \sum x_i$ ),  $N$  is the total number of countries. The entropy index reaches its maximum value in case of perfect diversification i.e when all  $P_i$  are equal. For  $N$  countries this value approaches  $\log_2 N$ . In our case for 55 countries, this maximum value can be 5.78. The value approaches 0 in case of concentration in export.

### EXPORT OF RAW HIDES AND SKINS FROM INDIA

To understand the overall pattern of exports and imports, we use the ITCHS code classification of DGCI & S. The ITCHS classification has following four subgroups for the leather industry.

ITCHS 41 Raw hides and skins (other than furskins) and leather

ITCHS 42 Articles of leather, animal gut, harness, and travel goods.

ITCHS 43 Furskins and artificial fur, manufactures thereof

ITCHS 64 Footwear, gaiters and the like, parts thereof.

The present paper will be focusing on trend of export of ITCHS 41 from 1990-91 to 2013-14.

**Table 1: Entropy Index**

S.No.	Year	Entropy Index
1	1990-91	3.52789231
2	1991-92	3.807370396
3	1992-93	3.705948
4	1993-94	3.743790021
5	1994-95	3.819249061
6	1995-96	3.8186711
7	1996-97	3.824572978
8	1997-98	3.781256018
9	1998-99	3.816628124
10	1999-2000	3.984451555
11	2000-01	3.742086297
12	2001-02	3.72460344
13	2002-03	3.585801968
14	2003-04	3.53855239
15	2004-05	3.527339257
16	2005-06	3.507664899
17	2006-07	3.476859961
18	2007-08	3.631863681
19	2008-09	3.71038698
20	2009-10	3.576625307
21	2010-11	3.584343862
22	2011-12	3.698228067
23	2012-13	3.479002922
24	2013-14	3.661531868

**SOURCE:** calculated from data collected from DGCI & S, Ministry of Commerce and Industry, New Delhi.

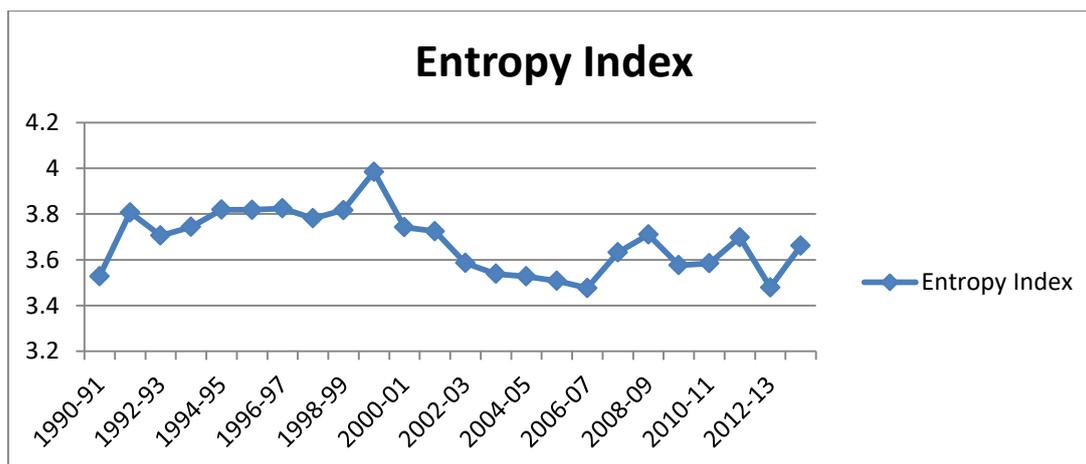


Fig-1: Entropy Index ( Interpreted based on table 1.)

As is clear from the above graph, the entropy index value was 3.807 in 1991-92 which shows comparatively more diversification in the export of raw hides and skin than in 1990-91 where value was 3.527. This can be attributed to policy of LPG (Liberalization, Privatization and Globalization) adopted by our policy makers in late 1980s and given a formal shape in 1991. As is evident from the entropy index, this had a positive effect on export of raw hide and skin. This diversification trend continued till 1999-2000 because of liberal trade policy of India during this period and further because India became member of WTO in 1995 which led to trade with more and more economies, thus aiding diversification. It is after 1999-2000 this trend of diversification reversed a little and concentration or specialization started taking place. It can be due to India's 'Look East Policy' which ushered into an era of free trade with East Asia and South East Asia region. The export data of year 1999-2000 shows concentration of trade in this selected region of the world particularly in countries like Hong Kong, Vietnam, China PRP, Korea and Thailand. From 2007-08, there is a fluctuating trend in value of ogive index due to unstable global economic situation.

The interpretation is also evident from the graph of ogive index which also highlights the similar variation in the scenario of diversification and concentration for the export of raw hide and skin from India to the fifty-five major countries chosen for our study. The fifty-five countries chosen for present study are

#### OGIVE INDEX

The Ogive (OGV) index measures the deviation from an equal distribution of export shares among commodities. The index may be expressed as follow:

$$OGV = N \sum_{i=1}^N (P_i - 1/N)^2$$

Where  $P_i = (x_i/X)$  is the actual share of the  $i^{\text{th}}$  commodity ( $x_i$ ) in total exports ( $X = \sum x_i$ ),  $N$  is the total number of export commodities in the export portfolio and  $1/N$  is assumed to be the "ideal" share of export earnings for each commodity.

When the OGV index approaches 0, it means the economy is highly diversified. A larger OGV index indicates less diversification. The maximum value of ogive index for  $N$  countries in case of highly concentrated trade approaches  $N-1$ . Thus in our case the value of ogive index can range from 0-54.

The value of ogive index has shown fluctuating trend. In 1990-91 the value of ogive was 6.16. In 1991-92 it falls to 4.30 showing improvement in diversification in comparison to 1990-91. In 2004-05 and 06-07 the ogive values has been maximum and increased to 9.38 which signifies less diversification.

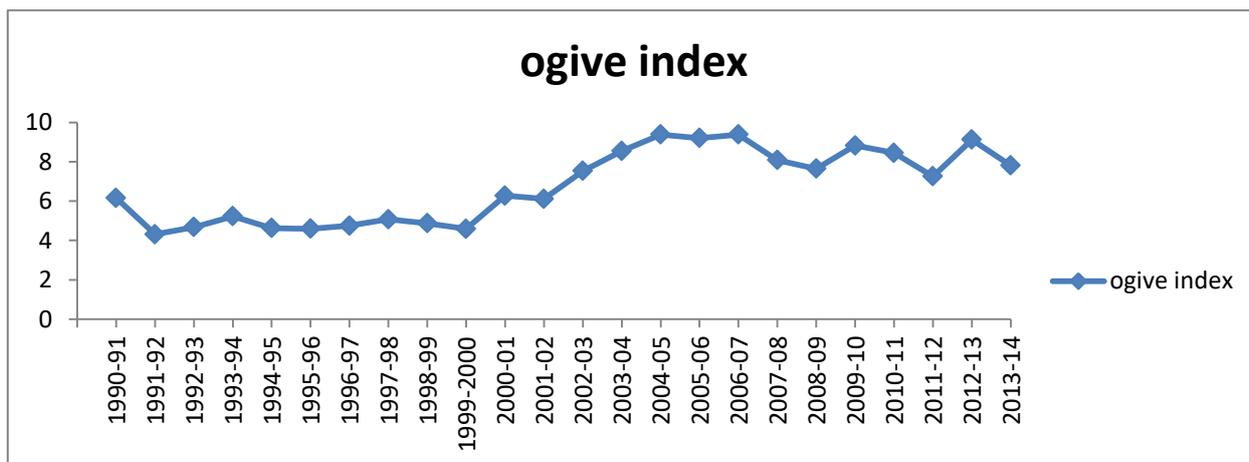
As is clear from the above graph, the ogive index value was 4.309 in 1991-92 which shows comparatively more diversification in the export of raw hides and skin than in 1990-91. This can be attributed to policy of LPG (Liberalization, Privatization and Globalization) adopted by our policy makers in late 1980s and given a formal shape in 1990-91. As is evident from the ogive index, this had a positive effect on export of raw hide and skin. This diversification trend continued till 1999-2000 because of liberal trade policy of India during this period and further because India became member of WTO in 1995 which led to trade with more and more economies, thus aiding diversification. It is after 1999-2000 this trend of diversification reversed a little and concentration or

specialization started taking place. It can be due to India's 'Look East Policy' which ushered into an era of free trade with East Asia and South East Asia region. The export data of year 1999-2000 shows concentration of trade in this selected region of the world particularly in countries like Hong Kong, Vietnam, China PRP, Korea and Thailand. From 2007-08, there is a fluctuating trend in value of ogive index due to unstable

global economic situation. The interpretation is not much different from the graph of entropy index which also highlights the similar variation in the scenario of diversification and concentration for the export of raw hide and skin from India to the fifty-five major countries chosen for our study.

**Table 2: Ogive (OGV) index**

Sr.No.	Year	ogive index
1	1990-91	6.163606993
2	1991-92	4.309347422
3	1992-93	4.673332937
4	1993-94	5.225458235
5	1994-95	4.626400508
6	1995-96	4.592311116
7	1996-97	4.749014979
8	1997-98	5.076089427
9	1998-99	4.869711506
10	1999-2000	4.583261033
11	2000-01	6.274168368
12	2001-02	6.115842978
13	2002-03	7.533304029
14	2003-04	8.54268667
15	2004-05	9.382554295
16	2005-06	9.204748255
17	2006-07	9.382995316
18	2007-08	8.080148975
19	2008-09	7.649104778
20	2009-10	8.824703688
21	2010-11	8.451740727
22	2011-12	7.255812334
23	2012-13	9.118874648
24	2013-14	7.809472434



**Fig- 2: ogive index (Interpreted on basis of values of table 2)**

**CONCLUSION**

From above we conclude that, both the entropy index value and ogive index value in 1991-92 shows comparatively more diversification in the export of raw hides and skin than in 1990-91. This can be attributed to policy of LPG (Liberalization, Privatization and Globalization) adopted by our policy makers in late 1980s and given a formal shape in 1991. As is evident from the entropy index and ogive index, this had a positive effect on export of raw hide and skin. This diversification trend continued till 1999-2000 because of liberal trade policy of India during this period and further because India became member of WTO in 1995 which led to trade with more and more economies, thus aiding diversification. It is after 1999-2000 this trend of diversification reversed a little and concentration or specialization started taking place. It can be due to India's 'Look East Policy' which ushered into an era of free trade with East Asia and South East Asia region. The export data of year 1999-2000 shows concentration of trade in this selected region of the world particularly in countries like Hong Kong, Vietnam, China PRP, Korea and Thailand. From 2007-08, there is a fluctuating trend in value of ogive index and entropy index due to unstable global economic situation.

The interpretation of ogive index and entropy index for export of raw hide and skin highlights the similar variation in the scenario of diversification and concentration for the export of raw hide and skin from India to the fifty-five major countries chosen for our study. The study thus signify comparatively increase in diversification after 1990-91 due to adoption of policy of LPG and this trend continued till 1999. After 1999-2000 concentration of export started to selected economies of Hong Kong, Vietnam, Korea and Thailand due to adoption of India's Look East Policy. Thus we can conclude that diversification of export of raw hide and skin had increased till 1999 and after that concentration of raw hide and skin to East Asia started. After 2008-09 it has shown fluctuations in diversification and concentration.

**REFERENCES**

1. Deolankar V; Export Problem of rural Based Industries- Leather, Khadigramodyog , November, 1989;109-15.
2. Gupta KK; Export Prospects for Indian Leather Footwear. Foreign Trade Bulletin, 1990; 15-17.
3. Kumar NC; Export Strategy for Leather Products: Some Suggestions in Foreign Trade and India's Export Policy, (Ed.) S. Subrahmanya, Deep and Deep, Publications, New Delhi, 1985.
4. Murugesan B, Subramaniam K; Export of Leather and Leather Products, Strategy for 90's. Yojana, April, 1990; 16-30: 21-25
5. NCAER, Small Scale Industry of Mysore. NCAER, New Delhi, 1967.
6. Rai HL, Reddy TS; India's Foreign Trade: Retrospective and Prospective. Uppal Publications, New Delhi, 1989; 87.
7. Seethramiah A; Report of the Committee on the Development of Leather and Leather Manufactures for Exports, Ministry of Foreign Trade, Government of India, New Delhi, 1972.
8. Sengupta Jayshree; Indian Leather Exports: Problem, Policies and Performance. Working Paper 22, Indian Council for Research on International Economic Relations, New Delhi, 1985.
9. Sahasranaman A; Economics of leather and leather goods Production in India with Special Reference to Export Market, Leather Age, Volume IX, September, 1987; 19-30.
10. Sinha S, Sinha S; Leather Exports an Illusory Boom. Economic and Political Weekly, Volume XXVI, 3132 August, 1991; 111-116.