E-JAIRIPA

Vol. VII (Issue I), pp.- 1-18

RECONNOITRING GI PERFORMANCE: GLOBAL AND INDIAN SCENARIO

Author: *Dr. Akinchan Buddhodev Sinha*[1]

Abstract

Geographical Indication (GI), as a form of Intellectual Property (IP), possesses tremendous commercial value. In general, a geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities and a reputation that are due to that origin. In this era of globalization, it is imperative to protect products originating from a particular place, i.e. from where it comes, since such products signify legacy of that place to which they belong , i.e. their genesis, further innovations that might have taken place and most significantly to preclude unauthorized usage of a registered Geographical Indication by others.

Geographical Indication (GI) contributes prodigiously towards the export earnings of a nation and also assists in uplifting the economic status of the people belonging to the place of GI product's origin. It is heartening to note that there is a whopping jump in GIs across the globe. As per the data of WIPO, from a total of 86 national and regional authorities there are approximately 58,600 protected GIs in existence in 2023.

In view of the soaring significance of GIs, this article made an academic endeavour to reconnoiter various interesting developments in terms of estimated global growth of GI, future growth trend of appellations of origins in force by origins and performance of GI product category wise.

Keywords**:** Geographical Indication; Estimated Global Growth; Appellations of Origins; GI Performance

JEL Classification Code: O34, R11

I. Introduction

Human beings have always strived to create something unique and innovative to be distinct or different from others. This strong desire to do something new, something different and to claim

[1] Deputy Director, The Institute of Company Secretaries of India (ICSI).

the new creation has led to advent of myriad products. However, one of the major factors that have driven innovation in the business world is incessant and ruthless competition.

To vanquish competition as well as to stay in the top slot, it is imperative to explore unique products and if such product has linkage to the culture or custom of a particular state or region of the country where it is produced, then it adds prodigious value, since it possesses the twin attributes of novelty and leveraging of cultural values.

Further, in this times of globalization, the protection and fostering of unique products and cultural heritage have gained steam. In this regard, Geographical Indications (GI) stand at the intersection of tradition, innovation, and economic development, providing a robust tool for protecting the authenticity and quality of products originating from specific regions.

GI is a vital facet of intellectual property law with far-reaching impacts for both cultural preservation as well as economic development. With the passage of time and phenomenal growth in business activities, several countries have developed GIs for their agricultural, natural and manufactured goods.

One of the fundamental benefits of GI protection is the preservation of cultural heritage. Numerous GI products possess enormous cultural and historical significance, evincing generations of traditional craftsmanship and knowledge. By preserving the geographical origin of these products, GI protection paves the way for transferring of heritage to future generations.

It is heartening to note that the awareness among the consumers across the globe with reference to the genuineness of the products they buy have soared remarkably. GI certification have captured the centered space, as it exhibits quality, thereby assuring consumers that products they purchase adheres to the standards linked to its geographical origin.

GI contributes prodigiously towards strengthening international trade and cultural exchange. It acts as ambassadors of its regions, giving global diaspora

The ensuing part of the article will explore the performance of GI both globally as well as in India by taking into consideration the growth of GI across selected national / regional authorities, growth prospects of appellations by origins, product-wise GI performance globally, and efficacy in the processes filing, examining and registration of GIs with respect to India.

II. Global GI Performance

As GI is gaining steam across the globe and several countries are filing GI applications for their varied products, in this regard, it generates substantial interests to reconnoiter the global performance of GIs on the basis of the following parameters:

i) Estimated global growth of GIs.

ii) Future growth trends of appellations of origin in force by origins.

iii) Performance of GI product category wise.

The data used for comprehending the GI performance in terms of the aforesaid parameters have been referred from World Intellectual Property Indicators Report, published by World Intellectual Property Organization ("WIPO") (). The data for the period from 2017 to 2023 have been considered for the analysis.

i) Estimated global growth of GI

The global GI growth trends have been forecasted based on the data pertaining to GI in force for selected national / regional authorities such as China, European Union, Switzerland, Republic of Moldova, Bosnia and Herzegovina, UK, Vietnam, India, Costa Rica Türkiye, Cuba, Canada, US, Republic of Korea, Iran, Japan, Thailand, Colombia, Argentia, Brazil, Malaysia, Ethiopia, Bangladesh, Jordan, Jamaica etc. The forecasting has been done for the period from 2024 to 2035.[2]

The current and forecasted GI in force across the selected national and regional authorities are provided in table 1 below.

[2] World Intellectual Property Report (Turnitin Observation 1: Link removed, only the organization name have been mentioned)

Table 1

Current and Forecasted Geographical indications in force[3]

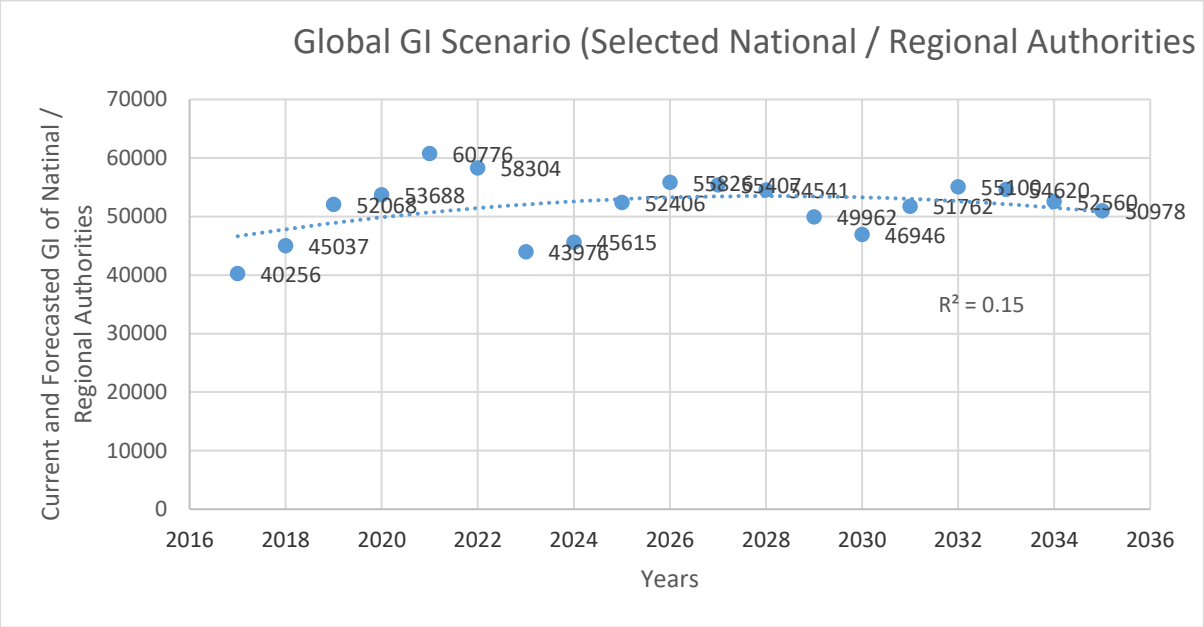
Years	Geographical indications in force for selected national/regional authorities
2017	40256
2018	45037
2019	52068
2020	53688
2021	60776
2022	58304
2023	43976
2024	45615
2025	52406
2026	55826
2027	55407
2028	54541
2029	49962
2030	46946
2031	51762
2032	55100
2033	54620
2034	52560
2035	50978

Source: World Intellectual Property Indicators (WIPO)

[3] "World Intellectual Property Indicators (WIPO)", Accessed from https://www.wipo.int/publications/en/details.jsp?id=4822

Based on the aforesaid data, the growth trend of GI in force has been derived using parabolic trend equation. The parabolic trend of both current and forecasted data of GI in force is provided in exhibit.

Exhibit 1



Source: Based on the GI figures provided in Table 1 (World Intellectual Property Indicators (WIPO))

On viewing the countries or regions (a partial list) mentioned above, it may be opined that both developed and emerging economies are contributing towards GI. Moreover, from the GI in force data provided through WIPO Intellectual Property Indicators reports, it may be seen that countries or group of countries (EU) from all the continents are enhancing their GIs, becoming a harbinger of strong growth in global trade, impetus to the growth of primary, secondary and tertiary sectors, generation of employment, rise in gross domestic product, per capita income and other vital economic variables of the economies.

ii) Future growth trend of appellations of origins in force by origins

Another benchmark considered to ascertain the performance of GIs across the world is exploring the growth trend of appellations of origins in force by origins like France, European Union, Italy, Iran, Czech Republic, Bulgaria, Georgia, Hungary, Cuba, Mexico, Peru, Tunisia,

Algeria, Portugal, ~~Slovakia, D.P.R.K., North Macedonia, Serbia, Bosnia and Herzegovina, Switzerland~~ etc. [4]

Parabolic trend has been applied to comprehend the projected appellations of origins that will be in force by origins for the period 2024-2035. The current and forecasted appellations of origins by origins is provided in table 2.

Table 2

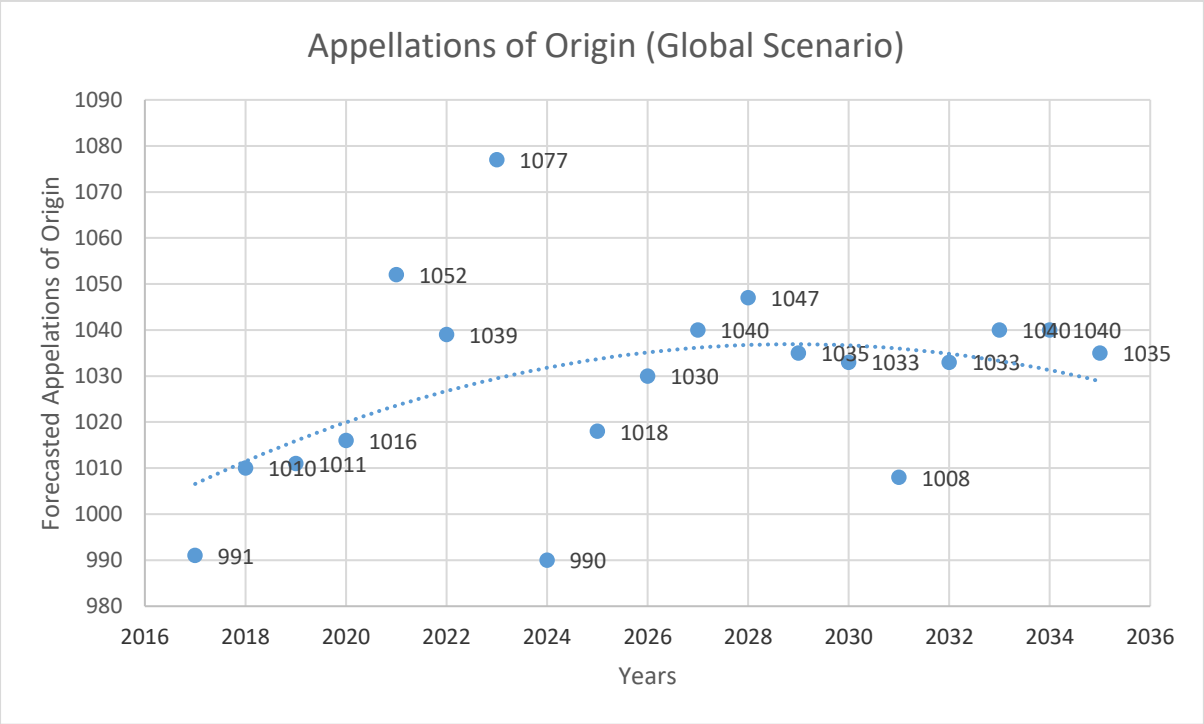
Appellations of origins by origins[5]

Years	**Appellations of origin in force by origin**
2017	991
2018	1010
2019	1011
2020	1016
2021	1052
2022	1039
2023	1077
2024	990
2025	1018
2026	1030
2027	1040
2028	1047
2029	1035
2030	1033
2031	1008
2032	1033
2033	1040
2034	1040
2035	1035

[4] "ibid"
[5] "World Intellectual Property Indicators (WIPO)

The parabolic trend exhibiting the growth of appellations of origin by origin is provided in exhibit 2.

Exhibit 2



Source: Based on the data of Appellations of Origin referred from World Intellectual Property Indicators (WIPO).

The above parabolic trend depicts an arc like structure of the growth of appellations of origin by origin, indicating that first there is a substantial rise in the appellations of origin across all the regions but then gradually going down, nevertheless the drop is not massive. Most of the data point lies outside the trend line signifying an uneven growth. However, the silver lining is that both existing and forecasted values of appellations of origin overall give a positive picture, implying that the products related to specific geographical environment are being produced more, thereby cultivating the practice of preserving and promoting products having strong linkage to the roots or culture of the nation.

iii) Performance of GI product category wise

With reference to the performance of GI, product category-wise, the performance of the following five categories of products, namely agricultural products, handicrafts, others / unknown, services and, wines and spirts, in terms of their share in total GI as per the data provided in the World Intellectual Property Indicators Reports for the periods 2017 to 2023

have been considered.[6] The share of GI of the above products in percentage terms of total GI is presented in table 3 below-

Table 3

GI Product Category Wise Share in Total GI (%)[7]

Years / GI Product Category Share (%)	Agricultural products	Handicrafts	Others/unknown	Services	Wines and spirits
2017	28.17089	2.730023	12.00657	0.0258245	57.0667
2018	29.93706	2.657162	16.25237	0.0515659	51.09881
2019	34.2	3.5	3.5	0.1	56.6
2020	38.61236	3.565525	1.703554	0.0688768	56.10249
2021	43.57275926	3.895673774	1.438625543	0.05174912	51.0411923
2022	43.06838446	4.237712637	1.981606524	0.020036466	50.69827085
2023	44.84	4.23	2.81	0.03	48.09

The performance analysis of the five categories of products on the basis of their share in total GI is provided in exhibit 3.

Exhibit 3

Performance Analysis of Products Category-wise in terms of share in total GI

Statistical Variables / Product Category	Agricultural products	Handicrafts	Others/unknown	Services	Wines and spirits
Mean	37.5	3.54	5.67	0.05	52.96
Inference	1. The mean value of agricultural	1.Handicrafts which provides	1.The others / unknown product category has also	The GI in services have an	1.Wines and spirits as it hold a lion share in the

[6] "ibid"
[7] "World Intellectual Property Indicators (WIPO)

	products is quite high for agricultural products, implying various forms of agricultural products are registered under GI. 2. Thus, high mean or average value of agricultural products GI is also an indicator of agricultural growth in various economies of the globe.	employment to many artisans across the world requires an impetus, so that the income levels of artisans go up. 2. Based on the share in GI, handicrafts have performed quite impressively, evincing a robust growth in innovation and newness.	displayed a robust performance in view of the percentage of GI it holds among the total GI across the globe. 2. These products may be small or lesser known but their contribution in business world is phenomenal.	insignificant share in the total GI and so its mean value tends to be on the lower side.	total GI, the same gets reflected in its average value too. It indicates that across the globe, several countries / regions are holding lot of GIs on various forms of wines and spirts.
Standard Error	2.57	0.25	2.25	0.01	1.34
Inference	From the given standard error value, it may be	In case of handicraft products, the standard error is quite less,	The mentioned standard error is a metaphor of relatively low variation between	Services has the least standard error, indicating	The standard error of wines and spirits is also quite low, indicating a

	inferred that agricultural products have performed quite better as its variance is not so high, implying that year-wise variation in the GI share data is less.	indicating lesser deviation from the population mean, indicating that most of the year-wise GI share data may have uniformity.	the sample and the actual mean of the population, indicating a fair performance.	the least deviation of the sample mean from the actual mean of the population. It may also be opined that the GI data of services sector possess uniformity to a large extent.	healthy performance in total share of GI.
Median	38.61	3.57	2.81	0.052	51.09
Inference	The median value of 38.61 indicates that share of agricultural products in GI is on the higher side, as median value implies the mid-value, and so	From the above median value, it may be inferred that in view of the handicrafts products share in total GI, it is quite satisfactory. However, there is a	Others/ unknown products have also fairly performed well, based on the median value. It reveals that though they are categorised under others / unknown in assessment of share in GI, but	As stated for its mean value, since the share of the services in GI is on the lower side, so its median value is also less. However, its composition in GI may	Since wines and spirts under the product categories holds the mammoth share in GI, its median value is also high, indicating that with the passage of time its composition in

	it may be deduced that a substantial share of GIs in agricultural products lies above the given median value.	tremendous scope of handicrafts manufacturing countries / regions to enhance their share in GI.	their contribution is relatively high.	increase in future, if new forms of services or unique services of various countries / regions which are still unexplored currently, later get discovered are included in GI.	total GI has enhanced.
Standard Deviation	6.81	0.65	5.95	0.028	3.56
Inference	The standard deviation of agricultural products is the highest among all the products covered under GI, thereby exhibiting volatility in share of agricultural	The performance of handicrafts with respect to standard deviation is quite satisfactory, as its value is 0.65, indicating that it has displayed a consistent	Others / unknown products share in GI have registered a high standard deviation, implying that there may be fluctuations in its share in GI. In other words, in certain years its share may have gone high and in	A lower standard deviation for the services may be attributed to its small share in the GI.	Wines and spirts have evinced better performance in standard deviation, as its standard deviation stood at 3.56. The most salient facet of the standard deviation of wines and spirts is that there share

	products in GI for the periods considered for the study.	performance as far as its share in the GI is concerned.	some years it might have moved downwards.		in the GI is highest but its volatility in year-wise share in total GI is less.
Kurtosis	-1.89	-1.38	0.19	0.41	-1.99
Inference	Kurtosis signifies whether the distribution is peaked or flat compared to a normal distribution. The negative kurtosis value of agricultural products demonstrates a flat distribution that is the shares of agricultural products in GI during the years considered for the study are scattered.	Like agricultural products, the shares of handicraft products tends to be scattered during the periods considered for the study. Since the kurtosis value is negative, it implies that the distribution is flat compared to the normal distribution.	The positive kurtosis value of others / unknown products share in GI is an indication that the distribution is peaked compared to the normal distribution. It denotes that data pertaining to share in GI is concentrated and less scattering.	Like others / unknown products, the share of services has also registered a positive kurtosis value, meaning that there is less scattering of data, meaning that share in GI in one year doesn't differ much from the share in another year. Hence exhibiting consistency	A kurtosis greater than +2 suggests a too peaked distribution, while less than -2 indicates a too flat one. Since in case of wines and spirits, the kurtosis value approaches to -2, it may be opined that the distribution may get flattened further, i.e. there may be further scattering of data pertaining to its share in GI.

				in performance.	
Skewness	-0.35	-0.47	1.35	0.91	0.045
Inference	Agricultural products have registered a negative skewness value indicating that the distribution is skewed towards the left with more GI share data clustered on the right. Since the skewness value is -0.35, i.e. not falling between -0.5 and 0.5, it may be deduced that the distribution	In case of handicraft products, since the GI share skewness value is almost near to -0.5, and if the skewness value lies between -0.5 and 0.5, then the distribution of value is considered to be almost symmetrical, in view of this, the skewness of GI of handicraft products may be considered to have somewhat symmetry.	If the skewness value lies between -2 and 2, it is generally acceptable. Hence, the skewness of GI of unknown / other products have shown a fairly good performance.	As skewness value lying between -1 and +1 is considered to be excellent and as it can be observed that the skewness of GI for services is 0.91, thereby exhibiting a robust performance.	Wines and spirts have also exhibited reasonably good performance, as its skewness value is positive, albeit on the lower side.

	is not symmetrical.				

Source: Based on the calculations of WIPO data

III. GI Scenario in India

India is progressing at an astounding pace in Geographical Indications (GIs) as evident from the number of GIs issued by the Department for Promotion of Industry and Internal Trade (DPIIT) which stood at 684 as on 31st December, 2024, comprising of 38 foreign products also. A whopping 635 GIs got registered as on March 31st, 2024, covering 37 foreign products. To provide fillip to the GI products among the users, lesser fee and simplified procedures for registration of Authorized Users have been espoused through GI (Amendment) Rules, 2020.[8]

Geographical Indications has registered a whopping 388% growth, as government congeals protection of indigenous products. In one of the salient initiatives of the government in promoting GI can be observed in the textile sector, wherein registration the Handloom Marketing Assistance (HMA) Scheme, National Handloom Development Programme (NHDP) implemented by the Office of the Development Commissioner (Handloom) and National Handicrafts Development Programme (NHDP) implemented by the Office of Development Commissioner (Handicrafts), Ministry of Textiles, GI registration have been initiated to provide impetus to the growth of GI in the textile sector.

implemented by Office of the Development Commissioner (Handloom) and National Handicrafts Development Programme (NHDP) implemented by Office of Development Commissioner (Handicrafts), Ministry of Textiles. The financial assistance provided under the schemes are:

i) Rs. 1.50 lakh for meeting the expenses in registering the designs/products.

ii) Rs.1.50 lakh to impart training to personnel of IA and for effective enforcement of G.I. registration.

iii) Also, financial assistance is provided for organizing seminars, workshops etc.

Total 106 handloom products, 6 products logos and 227 handicraft products have been registered under the GI Act, 1999. GI handloom products and handicraft products are also

[8] "Annual Report 2024-25, Department for Promotion of Industry & Internal Trade, Ministry of Commerce & Industry, Government of India", Accessed from https://dpiit.gov.in/sites/default/files/annualReport_English_21February2025_0.pdf

promoted in export market by O/o Dc (Handloom) and the O/o DC (Handicrafts). Further, to promote the GI handloom products exhibitions are organised across the country, including participation in various crafts melas and Dilli Haat programme.[9]

It is heartening to note that Government of India has set a massive target of reaching 10,000 GI tags by 2030, which will assist prodigiously in competing with China, which is currently a goliath in GI. This approach will act as a messiah for such Indian products which are witnessing constraints in safeguarding its GI tag. For example, several GI varieties of mangoes are now being cultivated in foreign lands and are being exported from those countries.Consequently, it has given birth to cut-throat competition for Indian mango growers, threatening their market dominance. Likewise, India's GI-marked Basmati rice is experiencing a challenge from its neighbouring country Pakistan as well as the European Union.The attempt to obtain independent recognition for the rice variety in the EU market has given birth to a dispute, thereby exerting a debilitating impact on India's dominance in Basmati exports to Europe.

An innovative measure suggested by the Government of India is showcasing of GI products in Indian embassies abroad, thereby evincing the One-District-One Product (ODOP) initiative of the Government of India. This approach will bolster the export potential of India's distinct and traditional products, thereby expanding the global footprints of Indian goods.

The gamut of India's GI tagged products encompasses Darjeeling tea from West Bengal, renowned s for its incomparable muscatel flavour; Kanchipuram Silk Sarees from Tamil Nadu, produced from pure mulberry silk with sophisticated designs; Mysore silk from Karnataka for its vivacious colours; Kashmir saffron for its rich fragrance etc. Thus, it may be opined that India possess wide range of GI tagged products, thereby creating a huge opportunity for augmenting exports. [10]

Government has also laid emphasis on the significance of superior branding of GI products and proposed for joining hands with the Food and Safety Standards Authority of India (FSSAI) and the Bureau of Indian Standards (BIS) to ameliorate quality and deal with the issue of imitated products.

To comprehend the efficacy of the processing of Geographical Indications in India, in terms of their filing, examination and registration status, the data pertaining to filed, examined and

[9] "Promotion of GI Tagged Indian Textiles", Accessed from https://www.pib.gov.in/PressReleasePage.aspx?PRID=2152551
[10] "Kumar Dhirendra, "India sets ambitious target of 10,000 GI tags by 2030 to close gap with rivals", Livemint.com, dated January 22, 2025.

registered status of GIs for the period from 2008 to 2024 have been considered. To comprehend the efficacy of GI processing in India, F-Test (One Factor Model) have been applied on the mentioned three-status of GI. The data filed, examined and registered status of GIs is presented in table 4 below-

Table 4

Filed, Examined and Registered Data of GIs in India [11]

Year	Filed	Examined	Registered
2008	37	48	31
2009	44	21	45
2010	40	46	14
2011	27	32	29
2012	148	37	23
2013	24	30	21
2014	75	42	22
2015	47	66	20
2016	17	200	26
2017	32	28	34
2018	38	18	25
2019	32	43	23
2020	42	51	22
2021	58	0	5
2022	116	46	50
2023	211	100	55
2024	134	98	160

***Null Hypothesis (H_0)*:** There is no significant difference in filed, examined and registered status of GI.

***Alternative Hypothesis (H_1)*:** There is a significant difference in filed, examined and registered status of GI.

The result of the F-Test (One Factor Model) is provided in the exhibit 4

[11] Annual Reports of the Office of the Controller General of Patents, Designs & Trade Marks, Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry, Government of India

Exhibit 4

Results of the F-Test (One Factor Model)

Anova: Single Factor						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Column 1	17	1122	66	2921.125		
Column 2	17	906	53.29411765	2079.221		
Column 3	17	605	35.58823529	1185.382		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	7932.275	2	3966.137255	1.923527	0.157185	3.190727336
Within Groups	98971.65	48	2061.909314			
Total	106903.9	50				

Source: Analysis based on the data of Table 4 (GI Filed, Examined and Registered),

Decision: Since the calculated value of F, i.e. 1.923527 is lower than the tabled value of F at 5% level of significance, i.e. 3.190727336, we fail to reject the null hypothesis. Thus, it may be concluded that all the three processes relating to GI, i.e. filing, examination and registration have equal efficacy, i.e. government is ensuring quick processing of GI applications, thereby providing a stimulus to the ease of doing business and bolstering trade.

IV. Conclusion

Notwithstanding Geographical Indications (GIs) are displaying an exalting performance both globally as well as nationally, but still there are some bottlenecks that needs to be looked into to enhance GI registrations such as prolonged registration timeline, complexity in scrutiny, objections, and multiple rounds of documentations exert a debilitating impact on the growth of GIs.

Big delays have been witnessed previously for obtaining GI for various products. For instance, in case of India's Darjeeling Tea, the GI application took 7 years to obtain GI. Similarly, due to procedural complexities and administrative hurdles, the GI for Alphonso Mangoes consumed 6 years for GI registration. Another striking example of huge delay pertains to Nagpur oranges which took 13 years to obtain GI registration. [12]

The silver lining is that there has been a mammoth growth in GI registrations. According to the data of WIPO from a total of 86 national and regional authorities there were nearly 58,600 protected GIs in existence in 2023. Out of 58,600 GIs in force, upper middle-income countries comprised 52.2% of the total GIs in force across the globe, followed by high-income economies which stood at 42.9%. However, middle-income and low-income economies GI in force figures in world's total GI registration figures stood at a paltry 4.8% and 0.1% respectively.

In terms of regional distribution, EU secured the first position with GI registrations at 52.5%, followed by Asia registering 39.5% (Oceania stood at 3.6%, North America at 2.8% , Latin America and Caribbean (LAC) witnessed GI registrations to the extent of 1.6% and Africa 0.2% . Further, as per the World IP Indicators 2024, the dragon, i.e. China has topped the chart with 9,785 GIs in force and India with 530 GIs in force. The GIs in force data for other economies stood at Germany (7,586), Hungary (7,290), Czech Republic (6,657), European Union (5,376), Switzerland (4,954), Türkiye (1,507), US (763) and Republic of Korea (643). Thus, India needs to gear up to improve its position in GI registrations, as it is evident from the statistics that it is lagging far behind China and other economies of the globe. However, in view of the aforesaid innovative initiatives of the government of India and by enhancing the gamut of GI by including more products, the scenario may change drastically**.**

[12] Seem Akshi (2025). "From Roots to Riches – The Economic and Cultural Value of Geographical Indications", Accessed from https://www.maheshwariandco.com/blog/geographical-indications-in-india/