Spending Diversification in Rural-Urban India: An Inter-State Analysis

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Abstract

Economic reforms in 1991has improved the economic condition in India, explored the new job opportunities- especially in the service sector, increased the degree of urbanization, enhanced the educational level and influenced the lifestyle of the consumers. As a result consumers' taste and preference have changed. The expenditure pattern between food and non-food baskets has changed. In this paper, the basic objective is to analyse the changing monthly per capita consumption expenditure pattern and the degree of diversification of spending of food and non-food baskets both in rural and urban India and its constituent states during the period of 1983 – 12. Based on five different rounds of NSSO data the expenditure in the commodity basket has differentiated in terms of food and non-food baskets. Here, we have used Theil entropy measure to show the extent of diversification of food and non-food baskets in India and its constituent states during the period under study. Our estimates reveal that with the development of the economy the expenditure share on food basket has declined compared to non-food one both in rural-urban India and its constituent states. Initially the degree of diversification is quite higher in non-food basket compared to food one but over time consumers' food expenditure has highly diversified than non-food one in all the constituent states both in rural-urban areas during 1983 – 12.

Key words: *Consumption expenditure, Spending Diversification Index, Rural-Urban differences.*
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Introduction

Indian economy has undergone a structural transformation since economic reforms in 1991. Due to the opening up of the economy the livelihood pattern of the consumers has changed in respect of composition of food and non-food baskets. People prefer food commodities or non-food commodities or both. So the consumption basket of the people consists of food and non-food commodities. Over time these commodity bundles have changed. A variety of items have entered in the baskets of food and non-food. As a result consumption pattern of the people has changed and thereby occurred diversification of the commodity bundle in the two groups of food and non-food. People have spent income to purchase food and non-food commodity bundles. As a result monthly per capita consumption expenditure has used as a proxy variable of income. Thus the consumption patterns may shift from food to non-food products as well as cereal to non-cereal products. An increase in consumption of high-value products such as egg-fish-

meat, dairy products, fruits and vegetables etc. in the non-cereal components results in major changes in the demand for food basket. Based on the changing consumption pattern here we are to examine the spending diversification in the consumption baskets of food and non-food in rural –urban India and its constituent states during the period of 1983 – 2011/12.

Literatures on spending diversification on commodities are very few both in national and international levels. Gupta and Mishra (2014) haves shown food consumption pattern across the selected social and economic groups and identified food consumption regions in India by using the NSSO data of 66th round (2009-10) and tried to show determinants of changing consumption (food item wise) pattern in rural India. Based on the unit level consumption expenditure data during 2004/05 – 2011/12 Tripathi (2016) has tried to show the regression-based inequality and concluded that household's size had been a major factor for inequality both in rural-urban India. To decompose the household's consumption expenditure inequalities Mishra and Parikh (1992) have used Entropy Index (Theil index and Atkinson's index). Based on the NSSO data (1977/78 to 1983) on consumption expenditure for rural- urban India and its 17major states, they have observed that between the states and indirectly the within states disparity had been one of the major factors for inequality in India. Paul (1988) in his paper has highlighted the differences between the household's demand, occupational structure, age-sex, living standard etc. in rural Punjab on the basis of NSSO data as well as the primary survey data. Using the Lorenz curve, Gini Coefficient, Coefficient of Variation, Theil index and Atkinson's index he has observed that occupation had been an important influential factor for the disparity in the rural Punjab. Venkatesh, Sangeetha and Singh (2016) have used the Simson's index and estimated the household's dietary diversification scores (HDDS) based on 12 food groups. Their analysis has shown the positive relationship between diet and production diversity. The study has revealed that local diet has been influenced by local production in India. Similarly, by using the NSSO data Sen (2009) in his study has shown the changing pattern of consumption expenditure in rural India during 1993-2004 based on the Theil and Simpson's index. He has examined the changing nature of consumption baskets across different income groups in rural India. Also, Chakraborty and Pal (2009) in their paper have verified the transition of consumption from luxury ones to the necessary ones during 1993-2004 in India by using the NSSO data.Ying and Brown(1989) have examined the households demand for variety of goods with the help of Herfindahl and Simpson indices. Their study has shown that the demand for the diversified food diet has a positive relation to the total food expenditure and numbers of members in the households in different age and sex groups. However, all these studies have not analysed the changes in the composition of baskets of food and non-food during 1983-2012. In our study we have taken the NSSO data during 1983- 12.

Objectives of the Study

In this paper we are to examine the compositional change in the monthly per capita consumption expenditure between food and non-food baskets both in rural and urban India and its constituent states during 1983-2012. We have used the NSSO consumption

expenditure data on five different rounds such as 38th, 50th, 56th, 60th and 68th which has covered the period of 1983 - 2012. These data are at the current price. These data have been deflated to compensate the effect of price change by using the deflator such as Consumer price index (CPI), (i.e., CPI of agricultural labour (CPI-AL) for the rural area and CPI of the industrial worker (CPI-IW) for the urban area) in the base year 2011-12.

Methodology

Let us consider a commodity basket consists of i number of commodity, i = 1,2,3……n, and $x = (x_1, x_2, x_3…..x_n)$ be the expenditure vector of consumption corresponding to these i commodities (in terms of rupees).

Consider another variable E, $E = \sum_{i=1}^{n} x_i$: E is the total spending of all commodities and the share of i-th commodity : $p_i = x_i / E$, such as $0 \leq p_i \leq 1$ and $\sum_i p_i = 1$.

Theil (1967) entropy measure is:

$$T = \sum_{i=1}^{n} \ln(1|p_i)\, p_i \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(1)}.$$

As the upper bound of the index depends on n, i.e. the number of items consumed, so, to normalise it we will divide T by ln n, the maximum value. Therefore, the Spending Diversification Index (SDI) is given by

$$SDI = \frac{T}{\ln n} = \sum_{i=1}^{n} \frac{\ln(1|p_i)\, p_i}{\ln n} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(2)}.$$

Now SDI lies between 0 to 1. If SDI = 1, it memes that consumption basket consists of various items and expenditure is highly diversified among the commodities. This is the case of complete diversification because all the commodities are equally important to consumer. On the other hand, if SDI = 0, it means that the only one item of the commodity basket shares the total expenditure and no other commodities are consumed at all. Here the consumer is totally biased for one commodity. This is the case of full concentration meaning that there is no option of spending diversification.

Estimates

I. Indices of Spending Diversification of Food and Non-food baskets in Rural-Urban India: State-wise analysis

Now using the Spending Diversification Index (SDI), we have to examine the extent of spending diversification of food and non-food baskets in rural and urban India and its constituent states during the period of 1983 - 2012.

- **Rural Area:**

Table 1 has shown the SDI of food and non-food baskets in rural India and its constituent states in the years of 1983, 1993-94, 2000-01, 2004-05 and 2011-12. At all India level the

SDI of food has increased from 0.694 in 1983 to 0.801 in 2000-01 and to 0.836 both in 2004-05 and 2011-12. In case of non-food basket the index has risen from 0.566 in 1983 to 0.770 in 2000-01, to 0.857 in 2004-05 and to 0.872 in 2011-12. Thus, we observe that food and non-food consumption expenditure have been diversified among the items in India during the period under study. The index value of food is more than that of non-food during 1983 - 2000/01 and thereafter the reverse trend is observed.

Wide variations of the SDI among the states are observed during the period of 1983 - 2012. Interestingly, we note that in case of food basket the SDI has increased in all the states excepting Assam during 1983- 2012. In case of non-food basket, it has increased significantly in all the states during the period under study. In 1983, in case of food basket the SDI is highest in Assam (0.922) followed by Maharashtra, Gujarat, Punjab, Madhya Pradesh, Kerala etc. and lowest one in Bihar (0.545). Whereas in non-food basket, the SDI is highest in Sikkim (0.607) followed by Rajasthan, Tripura, Punjab, and Orissa so on and lowest in Kerala (0.207). In 1993-94, in case of food the SDI is highest in Maharashtra (0.830) and the lowest in Orissa (0.611). But in case of non-food the index has been quite lower than the food. The highest SDI has been achieved by Haryana (0.570) and lowest one in Tamil Nadu (0.354). After that as the consumers' choice and preference has extremely changed over time, the spending disparity in food and non-food baskets has significantly changed. The plenty of new products has entered into the regular consumption basket. As a result, in most of the states the consumers' expenditure preference in food basket is pretty higher than that in non-food one. But some exceptions are there. 8 out of 22 states namely Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Rajasthan, Haryana, Tripura and Uttar Pradesh have the higher SDI in non-food basket than in food one. With the continuation of this trend, in 2004-05 the variation and demand for non-food basket have been higher in all the states excepting Kerala (0.837 for food and 0.825 for non-food). In 2011-12, in case of food basket the highest diversity has been marked by Kerala (0.858) and the lowest one by Rajasthan (0.753). But in case of non-food basket Andhra Pradesh (0.894) and Jharkhand (0.811) have respectively achieved the highest and lowest SDI.

- **Urban Area:**

Let us now examine the indices of spending diversification of food and non-food baskets in urban India and its constituent states during 1983 - 2012. Estimates (Table 2) revealed that at the all India level the SDI of food basket has increased from 0.790 in 1983 to 0.821 in 1993-94 and then declined to 0.780 in 2000-01. Thereafter it has risen to 0.824 in 2004-05 and to 0.827 in 2011-12. Whereas, in case of non-food basket the SDI has risen from 0.384 in 1983 to 0.458 in 1993-94 and to 0.932 in 2000-01. Thereafter it has slightly decreased to 0.884 in 2004-05 and increased slightly to 0.897 in 2011-12.

The SDI has varied among the constituent states in India during the period under study. In 1983, the highest SDI has been observed in Maharashtra (0.826) followed by Sikkim, Gujarat, Himachal Pradesh, Kerala, Punjab so on and lowest one in Bihar (0.700) in case of food basket. In case of non-food basket the highest one has in Himachal Pradesh (0.411) followed by Sikkim, Orissa, Bihar, Punjab, Madhya Pradesh and the lowest one

in Tamil Nadu (0.320). In 1993-94, the highest diversity of food basket has been achieved again by Maharashtra (0.842) followed by Madhya Pradesh, Kerala, Karnataka, Tamil Nadu, Jammu & Kashmir, Gujarat so on. In case of non-food basket, the highest one has again in Himachal Pradesh (0.534) followed by Arunachal Pradesh, Madhya Pradesh, Assam, Rajasthan, Punjab and the lowest one still in Bihar (0.325). From 2000-01 and onwards, the index of spending diversification has gradually increased both in food and non-food baskets in India and its constituent states. In this period the SDI of food as well as non-food baskets is highest in Maharashtra (0.832 for food & 0.945 for non-food). It is lowest in Haryana (0.753) in case of food and in Jammu & Kashmir (0.887) in case of non-food baskets. During 2004/05 – 2011/12 the index has continuously risen which has indicated that over time a large number of commodities have entered both in food and non-food baskets. Specifically, the consumers have preferred more on non-food commodities than food one. The highest spending index has been observed in Kerala both in 2004-05 and in 2011-12. In case of non-food basket the highest indices have achieved by Haryana (0.882) in 2004-05 and by Andhra Pradesh (0.894) in 2011-12. Interestingly, we note that irrespective of food basket the SDI has increased significantly in all the constituent states during the period under study in urban area. But the non-food basket has been more diversified than food one in all the states.

- **Food vs. Non-food**: **Rural-Urban India**

We have already examined separately the spending diversification indices of food and non-food baskets in rural-urban India and its constituent states during 1983 - 2011/12. We observed that food and non-food baskets have been diversified in India and its constituent states during the period under study. Let us examine a comparative analysis of the indices of two baskets in rural-urban India during the period under study. To compare the level of diversification between food and non-food baskets in rural-urban Indian states, we have estimated (Tables 1 and 2) the ratio between the spending diversification indices of food and non-food baskets (F/NF). If the ratio is greater (less) than unity, this indicates that the diversification of food basket has been higher (lower) than that of non-food basket. If the ratio is equal to unity, food and non-food baskets are equally diversified. Our estimates (Tables 1 and 2) reveal that at the all India level, in case of rural area the ratio has been greater than unity: 1.226 in 1983, 1.205 in 1993-94 and 1.040 in 2000-01. This shows that food basket diversity has been higher than non-food one. But thereafter it has been less than unity: 0.975 in 2004-05 and 0.959 in 2011-12. In urban area, the ratio has been greater than unity: 2.057 in 1983 and 1.793 in 1993-94. But it has been less than unity: to 0.837 in 2000-01, 0.932 in 2004-05 and 0.922 in 2011-12. This shows that over the time the diversification of food basket has been declining and that of non-food has gradually been increasing. As a result, diversification of non-food basket has been more than that of food basket during 2000 - 2012.

Let us now examine the state-wise analysis. The above trend has also been same at the state level. In case of rural area (Table 1), during 1983 - 1994 diversification of food basket has been more than that of non-food one in all the states excepting Orissa in 1983. But in 2000-01, the scenario has slowly been changing, as the value of the ratio has gradually been declining. During 2004 - 2012, non-food basket has been more

diversified as compared to food basket in all the constituent states excepting Kerala in 2004-05 and two states namely Kerala and Madhya Pradesh in 2011-12.

In urban area, the ratio has been greater than unity indicating that food basket diversification has been greater than non-food basket one in all the states during the period of 1983 – 1994. Thereafter the diversification of food basket has gradually been declining. The ratio has been less than unity in almost all the states during 2000-2012. This is due to the fact that both food and non-food baskets have been highly diversified and compared to the food basket; non-food basket has been diversified more.

Thus, we observe that over the time period, globalisation tremendously has affected the rural-urban consumers in India. The modernisation, technological innovation and e-commercialisation have given the opportunity to consume a bunch of new products which are added in non-food basket. Moreover, our analysis reveals that the states like Kerala, Maharashtra, Madhya Pradesh, Andhra Pradesh, Haryana, Gujarat etc. have the higher diversification of non-food basket as well an increasing diversification of food basket during 2004 – 2012.

II. Indices of Overall Spending Diversification (Food and Non-Food items) in Rural-Urban Indian States

Let us now examine the overall spending diversification in rural-urban India and its constituent states during 1983-2012. Here we have considered the total consumption basket consisting of thirteen food and fifteen non-food commodities (given in the note). That is, we are to examine the SDI of overall (food and non-food) consumption basket both in rural and urban India and its constitute states during the period under study. Our estimates are shown in Table 3.

- **Rural Area:**

With the changing consumption pattern, the overall SDI of consumption basket has increased overtime. At the all India level, the overall SDI in rural area has steadily increased from 0.705 in 1983 to 0.734 in 1993-94, to 0.776 in 2000-01, to 0.861 in 2004-05 and to 0.886 in 2011-12. So, the spending diversification has gradually increased and consumption basket has been diversified at the all India level during the period under study.

This type of variation of SDI has also observed among the constituent states in rural India during the period 1983 - 2012. Among the states the overall SDI is highest in Kerala (0.743 in 1983 & 0.761 in 1993-94) followed by Maharashtra, Karnataka, Punjab, Gujarat, Sikkim, Rajasthan, Himachal Pradesh, Andhra Pradesh, Uttar Pradesh etc. However, it is lowest in Orissa though the value has risen from 0.577 in 1983 to 0.649 in 1993-94. In 2000-01, Maharashtra (0.834) has achieved the highest position followed by Kerala, Karnataka, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Himachal Pradesh, and West Bengal and so on. Arunachal Pradesh (0.764) has registered the lowest position. But during the period of 2004/05 – 2011/12, the position of the states has continuously been changing. In 2004-05 the index is highest in Kerala (0.893) but in 2011-12 it has been occupied by Maharashtra (0.907). However, the lowest spending diversity has achieved

in Bihar (0.774) in 2004-05 and in Haryana (0.825) in 2011-12. Interestingly, we note that in rural area, over the period of almost 30 years all the 22 states have a significant increase in the spending pattern and thereby the SDI values has clearly shown the higher degree of diversification.

- **Urban Area:**

Let us now examine the indices of spending diversification of the overall consumption basket in urban India and its constituent states during 1983 - 2012. Estimates (Table 3) revealed that the SDI has initially declined from 0.737 in 1983 to 0.725 in 1993-94 and then increased to 0.898 in 2000-01.Thereafter it has declined to 0.890 in 2004-05 and again risen slightly to 0.897 in 2011-12. Thus the trend of SDI has been fluctuating during the period under study.

Among the states the index is highest in Sikkim (0.755) followed by Rajasthan, Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal, Uttar Pradesh etc. and it is lowest in Tripura (0.693) in 1983. In 1993-94, the index has gradually increased in all the states. Arunachal Pradesh (0.759) has achieved the highest position and Sikkim (0.643), the highest diversified state in 1983, has achieved the lowest one in 1993-94. However, from 2000-01 and onwards, Maharashtra has occupied the highest position, though during this period the value has continuously declined from 0.923 in 2000-01 to 0.895 in 2004-05 and to 0.884 in 2011-12. On the other hand, the lowest position has been observed by Bihar (0.867) in 2000-01 and Sikkim (0.882 in 2004-05 and 0.845 in 2011-12). Interestingly, we note that though Bihar and Sikkim have registered the lowest diversified states during the period but their SDI value has significantly higher which clearly indicated the increasing trend of consumption spending among the commodities in urban area during the period under study. The other states namely, Kerala, Uttar Pradesh, Andhra Pradesh, Madhya Pradesh, Himachal Pradesh, Tamil Nadu, Karnataka, Gujarat, Jharkhand etc have shown the constant progressed with higher level of SDI during the period under study.

Thus, we observe that with the changing consumers' taste and preference, the per capita spending diversification in the overall consumption basket has been fluctuating over time both in rural-urban India and its constituent states during the period 1983- 2012. The SDI has quite been higher in urban area than in rural one but the diversification in rural area has been rising during the period under study. The states like Maharashtra, Kerala, Gujarat, Karnataka, Andhra Pradesh, Himachal Pradesh, Jharkhand etc. have shown the higher SDI both in rural-urban area during 1983 – 2012.

III. State-classification on the basis of Overall Spending Diversification: Rural-Urban India

Throughout the paper we have examined the changing consumption spending diversification with respect to the food, non-food and overall commodity baskets during the period of 1983-2012. We now construct a 2× 2 classification of states on the basis of overall and food (or non-food) basket diversification at the all India level both in rural and urban area in five different time periods. Here, we have created four different cells (I, II, III and IV) based on two segments: (a) whether the value of the overall SDI of the state is higher or lower than that of the all India level and (b) whether the states' SDI of

food (or non-food) basket is higher or lower than the all India level SDI. Our estimates are shown in Tables 4 and 5.

- **Rural Area:**

Our estimate (Table 4) reveal that in rural area, in 1983 seven states namely, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Punjab, Rajasthan and Sikkim have fallen in cell I (high, high) with the higher SDI than the all India level of food, non-food and overall SDI. Similarly, Andhra Pradesh and Uttar Pradesh are the two common states in food and non-food baskets which have shown in cell II (low, high) with higher SDI in food and non-food but lower one in the overall basis compare to the all India level SDI. In 1993-94 Gujarat, Himachal Pradesh, Karnataka, Kerala and Maharashtra are still in cell I both in food and non-food baskets; but Punjab, Rajasthan and Sikkim in case of non-food basket have shown in cell II and Sikkim in food basket has the lower SDI and fallen in cell IV (low, low). In 2000-01, the situation has absolutely changed. Here other than Sikkim and Arunachal Pradesh in case of food and Orissa and Sikkim in case of non-food basket have shown in cell IV with the lower SDI compare to the overall as well as food and non-food groups SDI at all India. Though all the other states in case of non-food have noted with the higher SDI but in food, Assam, Bihar, Chhattisgarh, Haryana, Rajasthan, Tripura and Uttar Pradesh have shifted from cell II to cell III with the higher SDI in food basket but lower in the overall one. In 2004-05 only 6 states namely, Andhra Pradesh, Himachal Pradesh, Karnataka, Kerala, Maharashtra and Tamil Nadu have the higher SDI both in food and non-food and overall basket compared to the all India level. Surprisingly, all the other states in case of non-food basket have shown in cell IV and in food, Arunachal Pradesh and Orissa, Assam, Bihar, Chhattisgarh, Jharkhand, Rajasthan, Tripura and West Bengal are also added in category IV. But interestingly, Sikkim in food basket has the higher SDI but the lower one in the overall SDI and fallen in cell II. In 2011-12, only 4 states namely Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu have maintained their highest position in category I both in food and non-food basket. Whereas, in case of non-food basket accompanied by Kerala, all the states have shown in cell IV and Himachal Pradesh in cell II. On the other hand, in food basket, Assam, Bihar, Tripura and Haryana have also added in category IV with the lower SDI compared to the all India level.

- **Urban Area:**

Our estimates (Table 5) reveal that in urban area, in 1983 seven states namely, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Punjab, Rajasthan and Sikkim have fallen in cell I (high, high) . All the other states in case of food have shown in cell IV (low, low) but in case of non-food they are in cell II (low, high). In 1993-94, the five states namely, Arunachal Pradesh, Kerala, Madhya Pradesh, Tamil Nadu and Uttar Pradesh are in cell I in case of non-food and in cell III in case of food basket. In 2000-01, the six states namely Himachal Pradesh, Karnataka, Kerala, Maharashtra, Madhya Pradesh and Tamil Nadu have fallen in cell I for food and in cell III in non-food baskets. In 2004-05, only 2 states namely Kerala and Maharashtra have the higher SDI both in food and non-food and overall basket compared to the all India level. In 2011-12, the situation has changed in food and non-food baskets as all the states in case of food have shown in cell II and in case of non-food they have fallen in cell IV.

Conclusions

Our Study shows that the spending on food and non-food baskets has diversified irrespective of the regional boundary of India during the period under study. Almost all the states have shown the higher consumption spending diversification in food, non-food and overall commodity baskets. But the SDI of non-food basket is slightly higher than that of food one in rural area India and its constituent states during the period under study. The states-classification matrix has shown that the states like Kerala, Maharashtra, Madhya Pradesh, Andhra Pradesh, Haryana, Gujarat etc. have the higher spending diversification both in rural and urban India and this diversification actually exists for both food and non-food commodity basket. On the other hand, the states like Bihar, Arunachal Pradesh, Uttar Pradesh, Punjab, Orissa etc. have the lower diversification in consumption. Thus, we observe that the expenditure pattern and the degree of diversification in the consumption basket in rural-urban India have been changing during the period 1983 - 2012. Actually, consumers are now not only aware about the products but also being updated about the price, quality and the other options available to them. Govt should undertake some policy measures to the people so that they can improve their quality of life by increasing their spending on different commodities both in rural-urban area.

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Note*: Food basket includes 13 commodities : Cereals, Gram, Cereal Substitute, Pulses & Pulse product, Milk & Milk product, Edible Oil, Fish, Egg & Meat, Vegetables, Fruits & Nuts, Sugar, Salt, Spices, Beverages, etc.*
Non-food basket consists of 15 commodities: pan, tobacco and intoxicants, fuel and light, clothing & bedding, footwear, education, medical (institutional and non-institutional), entertainment, toilet articles, conveyance, rent, taxes &cesses, durable goods and miscellaneous consumer's goods & services.

Table 1: Indices of Spending Diversification of **Food and Non-Food basket** in **Rural Indian States** during 1983—2011/12

Year	1983			1993-94			2000-01			2004-05			2011-12		
States	Food	Non-food	F/NF	Food	Non-food	F/NF	Food	Non-food	F/NF	Food	Non-food	F/NF	Food	Non-food	F/NF
Andhra Pradesh	0.695	0.377	1.844	0.759	0.398	1.907	0.774	0.645	1.200	0.795	0.874	0.910	0.843	0.894	0.943
Arunachal Pradesh	---	---	---	---	0.559	---	0.668	0.740	0.903	0.715	0.808	0.885	0.772	0.853	0.905
Assam	0.922	0.349	2.642	0.683	0.552	1.237	0.684	0.775	0.883	0.748	0.781	0.958	0.786	0.820	0.959
Bihar	0.545	0.333	1.637	0.660	0.383	1.723	0.701	0.741	0.946	0.735	0.745	0.987	0.799	0.807	0.990
Chhattisgarh	---	---	---	---	---	---	0.715	0.780	0.917	0.685	0.822	0.833	0.799	0.812	0.984
Gujarat	0.769	0.361	2.130	0.798	0.514	1.553	0.792	0.741	1.069	0.803	0.834	0.963	0.813	0.860	0.945
Haryana	0.673	0.239	2.816	0.694	0.570	1.218	0.698	0.776	0.899	0.722	0.882	0.819	0.691	0.868	0.796
Himachal Pradesh	0.713	0.369	1.932	0.774	0.394	1.964	0.778	0.768	1.013	0.789	0.872	0.905	0.804	0.873	0.921
Jammu and Kashmir	0.689	0.232	2.970	0.763	0.518	1.473	0.776	0.745	1.042	0.782	0.824	0.949	0.807	0.848	0.952

Jharkhand	---	---	---	---	---	---	0.780	0.756	1.032	0.724	0.787	0.920	0.789	0.811	0.973
Kerala	0.726	0.207	3.507	0.797	0.523	1.524	0.816	0.751	1.087	0.837	0.825	1.015	0.858	0.851	1.008
Madhya Pradesh	0.742	0.242	3.066	0.811	0.406	1.998	0.807	0.759	1.063	0.834	0.874	0.954	0.839	0.819	1.024
Karnataka	0.647	0.239	2.707	0.730	0.558	1.308	0.775	0.753	1.029	0.781	0.816	0.957	0.817	0.842	0.970
Maharashtra	0.760	0.545	1.394	0.830	0.512	1.621	0.829	0.756	1.097	0.836	0.854	0.979	0.856	0.889	0.963
Orissa	0.499	0.557	0.896	0.611	0.403	1.516	0.647	0.651	0.994	0.708	0.809	0.875	0.784	0.825	0.950
Punjab	0.757	0.567	1.335	0.767	0.539	1.423	0.767	0.761	1.008	0.757	0.831	0.911	0.770	0.847	0.909
Rajasthan	0.683	0.596	1.146	0.707	0.553	1.278	0.712	0.758	0.939	0.708	0.848	0.835	0.753	0.854	0.882
Sikkim	0.709	0.607	1.168	0.754	0.468	1.611	---	---	---	0.788	0.839	0.939	0.799	0.845	0.946
Tamil Nadu	0.661	0.559	1.182	0.772	0.354	2.181	0.814	0.617	1.319	0.772	0.879	0.878	0.814	0.882	0.923
Tripura	0.663	0.586	1.131	0.715	0.504	1.419	0.708	0.789	0.897	0.725	0.801	0.905	0.765	0.825	0.927
Uttar Pradesh	0.701	0.551	1.272	0.763	0.406	1.879	0.692	0.775	0.893	0.789	0.840	0.939	0.816	0.847	0.963
West Bengal	0.577	0.547	1.055	0.668	0.507	1.318	0.830	0.741	1.120	0.739	0.832	0.888	0.784	0.841	0.932
All India	0.694	0.566	1.226	0.646	0.536	1.205	0.801	0.770	1.040	0.836	0.857	0.975	0.836	0.872	0.959

Source: Various Rounds of NSSO ,Govt. Of India
Note: F/NF is the ratio of Food / Non-food spending diversity

Table 2: Indices of Spending Diversification of **Food and Non-Food basket** in **Urban Indian States** during 1983—2011/12

Year	1983			1993-94			2000-01			2004-05			2011-12		
States	Food	Non-food	F/NF	Food	Non-food	F/NF	Food	Non-food	F/NF	Food	Non-food	F/NF	Food	Non-food	F/NF
Andhra Pradesh	0.777	0.377	2.061	0.801	0.446	1.796	0.799	0.923	0.866	0.807	0.884	0.913	0.833	0.894	0.932
Arunachal Pradesh	---	---	---	0.805	0.519	1.551	---	---	---	0.794	0.879	0.903	0.809	0.894	0.905
Assam	0.707	0.402	1.759	0.714	0.394	1.812	0.780	0.897	0.870	0.801	0.869	0.922	0.816	0.891	0.916
Bihar	0.700	0.399	1.754	0.735	0.325	2.262	0.778	0.887	0.877	0.787	0.838	0.939	0.808	0.876	0.922
Chhattisgarh	---	---	---	---	---	---	0.079	0.924	0.085	0.811	0.882	0.920	0.836	0.890	0.939
Gujarat	0.805	0.374	2.152	0.813	0.443	1.835	0.799	0.920	0.868	0.808	0.867	0.932	0.808	0.887	0.911
Haryana	0.780	0.374	2.086	0.773	0.445	1.737	0.753	0.900	0.837	0.769	0.892	0.862	0.756	0.865	0.874
Himachal Pradesh	0.798	0.422	1.891	0.806	0.534	1.509	0.799	0.937	0.853	0.811	0.897	0.904	0.812	0.888	0.914
Jammu and Kashmir	0.756	0.394	1.919	0.816	0.466	1.751	0.786	0.887	0.886	0.796	0.882	0.902	0.809	0.872	0.928
Jharkhand	---	---	---	---	---	---	0.780	0.909	0.858	0.817	0.870	0.939	0.826	0.870	0.949
Kerala	0.795	0.381	2.087	0.819	0.381	2.150	0.820	0.933	0.879	0.817	0.834	0.980	0.833	0.887	0.939
Madhya Pradesh	0.780	0.396	1.970	0.826	0.501	1.649	0.816	0.921	0.886	0.839	0.877	0.957	0.835	0.857	0.974
Karnataka	0.776	0.381	2.037	0.816	0.489	1.669	0.807	0.933	0.865	0.817	0.874	0.935	0.818	0.884	0.925
Maharashtra	0.826	0.362	2.282	0.842	0.434	1.940	0.832	0.945	0.880	0.842	0.883	0.954	0.831	0.889	0.935
Orissa	0.692	0.411	1.684	0.781	0.480	1.627	0.787	0.909	0.866	0.789	0.806	0.979	0.805	0.883	0.912
Punjab	0.797	0.398	2.003	0.808	0.459	1.760	0.793	0.911	0.870	0.782	0.853	0.917	0.774	0.875	0.885
Rajasthan	0.772	0.425	1.816	0.780	0.469	1.663	0.772	0.922	0.837	0.777	0.863	0.900	0.772	0.880	0.877
Sikkim	0.821	0.418	1.964	0.800	0.375	2.133	---	---	---	0.810	0.798	1.015	0.779	0.804	0.969
Tamil Nadu	0.754	0.320	2.356	0.815	0.493	1.653	0.821	0.928	0.885	0.828	0.845	0.980	0.835	0.869	0.961
Tripura	0.732	0.355	2.062	0.765	0.443	1.727	0.766	0.912	0.840	0.761	0.882	0.863	0.779	0.838	0.930
Uttar Pradesh	0.766	0.391	1.959	0.808	0.475	1.701	0.806	0.916	0.880	0.813	0.871	0.933	0.815	0.895	0.911
West Bengal	0.759	0.374	2.029	0.791	0.466	1.697	0.793	0.906	0.875	0.809	0.870	0.930	0.807	0.874	0.923
All India	0.790	0.384	2.057	0.821	0.458	1.793	0.780	0.932	0.837	0.824	0.884	0.932	0.827	0.897	0.922

Source: Various Rounds of NSSO ,Govt. Of India.
Note: F/NF is the ratio of Food / Non-food spending diversity.

Table 3. Indices of Overall Spending Diversification (Food and Non-Food baskets) in **Rural-Urban Indian States** during 1983 - 2011-12

Year	1983		1993-94		2000-01		2004-05		2011-12	
States	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	0.704	0.722	0.724	0.707	0.824	0.898	0.862	0.881	0.898	0.893
Arunachal Pradesh	--	--	--	0.759	0.764	--	0.811	0.870	0.855	0.887
Assam	0.653	0.705	0.682	0.692	0.776	0.868	0.788	0.871	0.836	0.888
Bihar	0.597	0.695	0.661	0.687	0.777	0.867	0.774	0.851	0.836	0.878
Chhattisgarh	--	--	--	--	0.797	0.894	0.795	0.882	0.849	0.894
Gujarat	0.729	0.738	0.740	0.720	0.813	0.895	0.848	0.875	0.871	0.884
Haryana	0.691	0.723	0.708	0.698	0.796	0.869	0.847	0.874	0.825	0.855
Himachal Pradesh	0.715	0.747	0.737	0.718	0.820	0.901	0.866	0.889	0.875	0.883
Jammu and Kashmir	0.693	0.723	0.723	0.725	0.809	0.871	0.838	0.874	0.863	0.877
Jharkhand	--	--	--	--	0.814	0.874	0.788	0.878	0.839	0.881
Karnataka	0.716	0.734	0.741	0.711	0.826	0.909	0.867	0.862	0.893	0.883
Kerala	0.743	0.739	0.761	0.743	0.825	0.905	0.893	0.891	0.859	0.873
Madhya Pradesh	0.682	0.728	0.722	0.729	0.812	0.907	0.839	0.881	0.867	0.884
Maharashtra	0.738	0.744	0.758	0.721	0.834	0.923	0.882	0.895	0.907	0.894
Orissa	0.577	0.696	0.649	0.716	0.768	0.883	0.788	0.861	0.842	0.880
Punjab	0.736	0.738	0.731	0.713	0.808	0.890	0.839	0.858	0.853	0.867
Rajasthan	0.711	0.740	0.707	0.711	0.792	0.884	0.818	0.862	0.847	0.869
Sikkim	0.718	0.755	0.643	0.682	--	--	0.849	0.842	0.859	0.845
Tamil Nadu	0.686	0.710	0.714	0.729	0.822	0.907	0.885	0.871	0.894	0.882
Tripura	0.682	0.693	0.694	0.698	0.800	0.869	0.791	0.863	0.831	0.850
Uttar Pradesh	0.704	0.729	0.729	0.728	0.791	0.897	0.854	0.885	0.867	0.891
West Bengal	0.618	0.719	0.672	0.716	0.822	0.885	0.817	0.877	0.844	0.878
All India	**0.705**	**0.737**	**0.734**	**0.725**	**0.776**	**0.898**	**0.861**	**0.890**	**0.886**	**0.897**

Source: Various Rounds of NSSO,Govt. Of India.

Table 4. 2×2 State-classification on the basis of Overall Spending Diversification in **Rural India** during1983 - 2011-12

1983	**Food Group SDI (All India : 0.694)**		**Non-Food Group SDI (All India : 0.566)**	
Overall SDI (All India : 0.705)	**High**	**Low**	**High**	**Low**
High	I.Gujarat,Himachal Pradesh, Karnataka,Kerala,Maharashtra, Punjab, Rajasthan, Sikkim	II.---	I.Gujarat,Himachal Pradesh,Karnataka,Kerala, Maharashtra, Punjab, Rajasthan, Sikkim	II.---
Low	III.Andhra Pradesh, Uttar Pradesh	IV.Assam,Bihar, Haryana, Jammu & Kashmir, Orissa, Tamil Nadu, Tripura, West Bengal	III.Andhra Pradesh,Assam,Bihar, Haryana,Jammu & Kashmir, Orissa, Tamil Nadu, Tripura, Uttar Pradesh,West Bengal	IV---
1993-94	**Food Group SDI (All India : 0.646)**		**Non-Food Group SDI (All India : 0.821)**	
Overall SDI (All India :0.734)	**High**	**Low**	**High**	**Low**
High	I.Gujarat,Himachal Pradesh, Karnataka,Kerala,Maharashtra	II.---	I.Gujarat,Himachal Pradesh, Karnataka,Kerala, Maharashtra	II.---
Low	III.Andhra Pradesh, Assam,Bihar, Haryana,Jammu & Kashmir, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	IV.Sikkim	III.Andhra Pradesh,Assam,Bihar, Haryana,Jammu & Kashmir, Orissa, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	IV.---
2000-01	**Food Group SDI (All India : 0.801)**		**Non-Food Group SDI (All India :0.770)**	
Overall SDI (All India : 0.776)	**High**	**Low**	**High**	**Low**
High	I.Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu & Kashmir,Jharkhand, Karnataka, Kerala, Maharashtra Madhya Pradesh, Punjab, Tamil Nadu, West Bengal	II.Assam,Bihar, Chhattisgarh, Haryana, Rajasthan, Tripura, Uttar Pradesh	I.Andhra Pradesh, Arunachal Pradesh, Assam,Bihar, Chhattisgarh, Gujarat,Himachal Pradesh, Haryana, Jammu& Kashmir, Jharkhand, Karnataka,Kerala,Maharashtra, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	II.---
Low	III.---	IV.Arunachal Pradesh, Orissa, Sikkim	III.---	IV.Orissa, Sikkim
2004-05	**Food Group SDI (All India : 0.836)**		**Non-Food Group SDI (All India : 0.857)**	
Overall SDI (All India :0.861)	**High**	**Low**	**High**	**Low**
High	I.Andhra Pradesh, Himachal Pradesh,Karnataka,Kerala,Maharashtra, Tamil Nadu	II.---	I.Andhra Pradesh,Himachal Pradesh, Karnataka,Kerala,Maharashtra,Tamil Nadu	II.---
Low	III.Gujarat, Haryana, Jammu and Kashmir, Karnataka,Kerala, Maharashtra, Madhya Pradesh, Punjab, Sikkim, Uttar Pradesh	IV.Arunachal Pradesh,Assam,Bihar, Chhattisgarh, Jharkhand, Orissa, Rajasthan, Tripura, West Bengal	III.---	IV.Arunachal Pradesh,Assam,Bihar, Chhattisgarh,Gujarat, Haryana,Jammu&Kashmir, Jharkhand, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh,West Bengal
2011-12	**Food Group SDI (All India : 0.836)**		**Non-Food Group SDI (All India : 0.872)**	

Overall SDI (All India : 0.886)	High	Low	High	Low
High	I.Andhra Pradesh, Karnataka, Maharashtra,Tamil Nadu	II.---	I.Andhra Pradesh, Karnataka, Maharashtra,Tamil Nadu	II.---
Low	III.Arunachal Pradesh, Chhattisgarh,Gujarat, Himachal Pradesh, Jammu &Kashmir, Jharkhand, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Uttar Pradesh, West Bengal	IV.Assam,Bihar, Haryana Tripura	III.Himachal Pradesh	IV.Arunachal Pradesh, Assam, Bihar, Chhattisgarh,Gujarat, Haryana,Jammu & Kashmir,Jharkhand, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, West Bengal

Note: High indicate Greater than All India level of SDI, Low indicate lower than All India level of SDI

Table 5. 2×2 State-classification on the basis of Overall Spending Diversification in **Urban India**during1983 – 2011/12

1983	Food Group SDI (All India : 0.790)		Non-Food Group SDI (All India :0.384)	
Overall SDI (All India :0.705)	High	Low	High	Low
High	I -	II. Gujarat, Himachal Pradesh, Kerala,Maharashtra, Punjab, Rajasthan, Sikkim	I.Gujarat, Himachal Pradesh, Kerala,Maharashtra, Punjab, Rajasthan, Sikkim	II. ---
Low	III ---	IV. Andhra Pradesh,Assam,Bihar, Haryana,Jammu & Kashmir, Karnataka, Madhya Pradesh, Orissa, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	III.Andhra Pradesh,Assam,Bihar, Haryana,Jammu & Kashmir, Karnataka, Madhya Pradesh, Orissa, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	IV. ---
1993-94	**Food Group SDI (All India :0.821)**		**Non-Food Group SDI (All India :0.458)**	
Overall SDI (All India :0.734)	High	Low	High	Low
High	I. - - -	II.Arunachal Pradesh, Kerala,Madhya Pradesh, Tamil Nadu, Uttar Pradesh	I.Arunachal Pradesh, Kerala,Madhya Pradesh, Tamil Nadu, Uttar Pradesh	II. ---
Low	II. - - -	IV.Andhra Pradesh, Assam,Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Sikkim, Tripura, West Bengal	III.Andhra Pradesh, Assam,Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Sikkim, Tripura, West Bengal	IV. ------
2000-01	**Food Group SDI (All India :0.780)**		**Non-Food Group SDI (All India : 0.932)**	
Overall SDI (All India : 0.776)	High	Low	High	Low
High	I.Himachal Pradesh,Karnataka, Kerala,Maharashtra, Madhya Pradesh, Tamil Nadu	II. ---	I. ------	II.Himachal Pradesh,Karnataka,Kerala,Maharashtra, Madhya Pradesh, Tamil Nadu
Low	III.Andhra Pradesh, Assam,Bihar, Chhattisgarh, Gujarat,	IV.Arunachal Pradesh, Sikkim	III.------	IV.Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana,Jammu & Kashmir, Jharkhand, Orissa, Punjab,

	Haryana,Jammu & Kashmir, Jharkhand,Orissa, Punjab, Rajasthan, Tripura, Uttar Pradesh, West Bengal			Rajasthan, Sikkim, Tripura, Uttar Pradesh, West Bengal
2004-05	**Food Group SDI (All India : 0.824)**		**Non-Food Group SDI (All India : 0.884)**	
Overall SDI (All India : 0.861)	**High**	**Low**	**High**	**Low**
High	I.Kerala, Maharashtra	II. ---	I.Kerala, Maharashtra	II. ---
Low	III.Andhra Pradesh, Arunachal Pradesh,Assam, Bihar,Chhattisgarh,Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir,Jharkhand,Karnataka, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	IV.---	III.Himachal Pradesh, Uttar Pradesh,	IV.Andhra Pradesh, Arunachal Pradesh, Assam, Bihar,Chhattisgarh,Gujarat, Haryana, Jammu & Kashmir,Jharkhand, Karnataka, Madhya Pradesh, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, West Bengal
2011-12	**Food Group SDI (All India : 0.836)**		**Non-Food Group SDI (All India : 0.897)**	
Overall SDI (All India : 0.886)	**High**	**Low**	**High**	**Low**
High	I. ---	II. ---	I. ---	II.---
Low	III.Andhra Pradesh, Arunachal Pradesh, Assam,Bihar, Chhattisgarh, Gujarat,Himachal Pradesh, Haryana,Jammu &Kashmir, Jharkhand, Karnataka, Kerala,Maharashtra, Madhya Pradesh, Punjab, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal	IV.---	III.---	IV.Andhra Pradesh, Arunachal Pradesh, Assam,Bihar, Chhattisgarh, Gujarat,Himachal Pradesh, Haryana,Jammu & Kashmir, Jharkhand, Karnataka, Kerala,Maharashtra, Madhya Pradesh, Punjab, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal

Note: High indicate Greater than All India level of SDI, Low indicate lower than All India level of SDI.