Measuring More Than Money: Unpacking Consumption Disparities in Leh, Ladakh through Reference Periods

Tsering Yangzom

Department of Economics, University of Jammu, J&K -UT, 180006

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ABSTRACT

Household consumption behaviour reflects both the economic and social well-being of households, as well as their priorities. Spending patterns across categories such as health, education, and food vary and are influenced by factors such as gender and sector. This study investigates disparities in consumption expenditure patterns in Leh, Union Territory of Ladakh. The primary objective is to assess the pattern of Monthly Per Capita Consumption Expenditure (MPCE) using both Uniform Recall Period (URP) and Mixed Recall Period (MRP) methods. It further examines disparities in MPCE based on gender, sector (rural/urban), and tehsil-level differences. Descriptive and analytical statistical tools are used for analysis. The data is drawn from a research project funded by the University of Jammu under the Seed and Research Grants program. Findings indicate that the reference period significantly affects MPCE estimates. Rural areas, with more diverse income sources, show greater variance in mean MPCE compared to urban areas. Similarly, female-headed households display higher variance in mean MPCE than male-headed households. The study highlights the vulnerability of rural and female-headed households in Leh district. It concludes by recommending targeted and flexible policy interventions to address these disparities and promote inclusive development.

Keywords: Consumption Expenditure, MPCE, Households, Disparities, Leh-Ladakh

INTRODUCTION

Poverty remains deeply rooted in society and significantly impacts household consumption behaviour. Consumption expenditure reflects how households allocate their income between food and non-food items, making it a central metric for determining whether an individual or household is poor or non-poor. Notably, the marginal propensity to consume is generally higher among the poor than the non-poor. Consequently, consumption behaviour is a complex subject, influenced by multiple household-level factors such as income (especially expected future income), region, gender of the household head, education level, and access to markets.

Understanding consumption patterns enables policymakers to design targeted interventions in areas such as poverty alleviation, taxation, and subsidies. In developing economies, a greater proportion of income is typically spent on food, whereas in wealthier segments, spending on non-food items increases. Therefore, studying consumption behaviour is crucial for forecasting economic trends and identifying socio-economic disparities. It also reveals the priorities and vulnerabilities of different population groups.

To analyze consumption behaviour, this study uses Monthly Per Capita Expenditure (MPCE), measured through two methods: the Uniform Recall Period (URP) and the Mixed Recall Period (MRP). Under the URP method, all expenditure data—whether on frequently purchased items (like food) or infrequent purchases (such as clothing, education, or durable goods)—are collected based on a 30-day recall period. Although simpler to implement, this method may lead to underreporting of infrequent or high-cost items. In contrast, the MRP method uses a 30-day recall period for food items and a 365-day recall period for infrequently purchased items. This approach more accurately captures large, occasional expenditures but often results in higher reported household consumption and lower poverty ratios. This study primarily takes a descriptive approach to address its research questions, supported by one-way Analysis of Variance (ANOVA) for statistical validation. The research

investigates the following: (a) Consumption expenditure patterns in Leh district based on URP and MRP methods, (b) Disparities in consumption expenditure among tehsils, (c) Rural-urban differences in consumption patterns, (d) Gender-based differences in household consumption and (e) Policy recommendations based on the findings

Accordingly, five research hypotheses are proposed:

H1: The mean consumption expenditure is significantly higher under the MRP method than the URP method in Leh district.
H2: There are significant differences in mean consumption expenditure among tehsils in Leh district.
H3: The mean consumption expenditure is higher in urban areas than in rural areas.
H4: Male-headed households have higher mean consumption expenditure than female-headed households.

The remainder of this paper is structured as follows: **Section 2** reviews the relevant literature, **Section 3** outlines the data and research methodology, **Section 4** presents the results and analysis of consumption expenditure disparities, **Section 5** summarizes the main findings and conclusions and **Section 6** offers policy recommendations.

LITERATURE REVIEW

This section reviews relevant literature concerning Monthly Per Capita Consumption Expenditure (MPCE). Addai et al. (2022) examined food consumption per capita, household dietary diversity, and vulnerability among male- and female-headed households in Ghana. They found significant disparities in food consumption and dietary diversity but no statistically significant difference in overall poverty vulnerability. However, the study highlighted systemic vulnerability to food poverty among female-headed households.

Ajuruchukwu et al. (2016) studied poverty determinants in South Africa and found household size to be positively associated with poverty, while age and education had negative effects. Female-headed households were more likely to be poor than their male counterparts.

Heshmati et al. (2019), using multiple rounds of India's National Sample Survey (50th to 66th), found that MPCE is influenced by household characteristics such as occupation, size, and social status, as well as by the head's age, education, and marital status.

Hossain and Al-Amin (2019), in a cross-sectional study using Bangladesh’s 2010 Household Income and Expenditure Survey, found that households with non-farm income spent 29% more than others. Per capita income, education, smaller family size, and a lower dependency ratio were also positively linked to higher consumption.

Ekong and Effiong (2020) conducted a macro-level analysis of household consumption expenditure in West Africa (1999–2018), focusing on Nigeria and Ghana. They found income had a positive effect on consumption, while interest and savings rates had negative impacts.

Gradin (2009) analysed racial poverty disparities in Brazil using Oaxaca-Blinder decomposition with data from 1992 and 2005. Differences in occupation, education, and demographics—especially the number of dependents—explained most of the gap between Afro-Brazilians.

Nguyen (2020) reported similar findings across Southeast Asian countries (Vietnam, Philippines, Indonesia, Thailand, and Cambodia, 2006–2014), noting that income, education, and household size significantly affected household consumption.

Hone and Mariennayya (2019), in a study from Ethiopia, identified disposable income and family size as direct drivers of consumption, while savings had a negative influence.

Mignouna et al. (2015) used micro-econometric analysis on 1,400 yam-farming households in rural Nigeria and

Ghana. They found that age, education, household size, occupation, family structure, and farm size influenced consumption expenditure.

Lastly, a cross-sectional study in Ethiopia assessed Foster-Greer-Thorbecke (FGT) poverty levels by household head gender. It found female-headed households to be generally poorer. Logistic regression identified household size, livestock ownership, and landholding as key poverty determinants.

While numerous studies on household consumption expenditure exist at both international and national levels, there is a noticeable lack of research specific to the Leh district. This study aims to address that gap and contribute to the existing body of knowledge on the subject.

RESEARCH DESIGN AND METHODOLOGY

This study is a part of the research project funded by University of Jammu under the aegis of Seed and Research Grants (2023). The sample constitutes of 414 rural and 86 urban households from the district and these 500 households encompassed from 15 villages and 4 towns across 7 tehsils namely, Leh, Khalsti, Nyoma, Kharu, Diskit, Saspol, and Durbuk, and the 8th tehsil Sumoor has been excluded from the study. Initially, the sample size of 384 has been calculated as per Cohran method at 95 percent confidence interval and 5 percent margin error. This means that 384 or more measurements/ surveys are needed to have a confidence level of 95 percent that the real value is within plus or minus 5 percent of the measured value. Therefore, the study took more than 384 sample size that is 500 sample households.

The following Table 1 shows the total number population and sampled households in each tehsil. Since, in order to make the survey measurement closer to the real value, we opted for 500 sample size from the district. The study tried its best to get closer to the proportionate sample population from each tehsil.

Table 1: Tehsil Wise Descriptive Statistics of the Population and Sampled Households

Tehsils	Population (in Absolute Number)	Population (in Percentage)	Sampled Households (in Absolute Number)	Sampled Households (in Percentage)	Valid Percentage
Leh	68272	53.21	233	46.6	46.6
Khalsti	13494	10.52	53	10.6	10.6
Nyoma	8625	6.72	42	8.4	8.4
Kharu	12343	9.62	22	4.4	4.4
Diskit	17268	13.53	84	16.8	16.8
Saspol	3599	2.80	36	7.2	7.2
Durbuk	4721	3.68	30	6	6
Total	128322	100	500	100	100

Source: Self-Computed

Note: * Sumoor Tehsil has been excluded

RESULTS AND DISCUSSIONS

As far as the first objective of the study is concerned, the Table 2 explains the estimates of monthly per capita expenditure of the sample households that is, The Means, Sum, Minimum and Maximum values, and variances and standard deviations as per URP and the MRP based. It shows that the means of MPCE are Rs. 3789.2 and Rs. 23,177 as per URP and MRP respectively. To add another context to the findings, let's explore the minimum and maximum MPCE under both the methods. The Overall, the study has the range from Rs. 133.33 to Rs.

25000.00 as per the URP and the range is Rs 464.29 to Rs 336000.00 under the MRP. Whereas, the standard deviation is higher in the MRP based Thus, this finding validates the first hypothesis i.e., the mean consumption expenditure (MPCE) is much higher in MRP based method than the URP based method in Leh district.

MPCE (that is Rs 26828.16), at the same time, the variance is also higher in the MRP based MPCE that is Rs 7,19,800,000. Thus, this can be interpreted that the variability of MPCE is very high in MRP based in comparison to URP based. This also indicates that Leh spend relatively much more on infrequent items (that is non-food items) than food items throughout a year. These non-food items are education, health, clothing, beddings and durables. And this was expected to occur as the study has taken one of the alternative hypotheses as the mean consumption expenditure is much higher in MRP based method than the URP based method in Leh district.

Table 2: Descriptive Statistics of MPCE in Leh District Across URP and MRP Reference Periods (In Rupees)

Methods (Reference Period)	N (Sample Size)	Minimum	Maximum	Sum	Mean	Standard Deviation	Variance
URP	500	133.33	25000	1890000	3789.2	3428.732	11,760,000
MRP	500	464.29	336000	11600000	23177	26828.16	719800,000

Source: Self-Computed

The second objective is to identify the consumption expenditure pattern disparities among Tehsils and this corresponds to the second hypothesis i.e., There is a significant difference in the means of consumption expenditure among tehsils of Leh district. Tehsil-wise MPCE estimates have been shown in Table 3 portrays the URP based MPCE estimates across Tehsils of Leh district. As mentioned before, the district has eight tehsils in total and the study covers all tehsils except Sumoor. While looking at mean values of MPCE of these Tehsils, it is found that Durbuk tehsil has the highest mean (MPCE) value that is Rs 4997 and the lowest mean (MPCE) value with Rs 2296.4 accounts to Nyoma tehsil. The overall Leh district's mean (MPCE) is Rs 3789.2 and while comparing this district's mean with the Tehsils', it has been found that Tehsils like Leh, Saspol and Durbuk have mean (MPCE) values above the mean (district). whereas, majority Tehsils namely Khaltsi, Nyoma , Kharu and Disket, have mean values lower than the district average (mean).

Table 3:Tehsil Wise MPCE Estimates across Tehsils as per URP Reference Period (in Rs.)

Tehsils	N (Sample Size)	Minimum	Maximum	Sum	Mean	Standard Deviation	Variance
Leh	233	250.00	25,000	1050,000	4524.8	3657.94454	13,380,000
Khaltsi	53	666.67	10,833.33	138,000	2604.4	2111.62097	445,900
Nyoma	42	571.43	7,500	96,400	2296.4	2047.34485	4,192,000
Kharu	22	133.33	14,000	52,400	2380.3	3112.077066	9,685,000
Disket	84	175.00	25,000	264,000	3137.1	3679.61598	12,080,000
Saspol	36	750.00	18,333.33	143,000	3960.9	3002.61561	9,010,000
Durbuk	30	1,857.14	17,000	150,000	4997	3260.29987	10,630,000
Total (Leh District)	500	133.33	25,000	1,890,000	3789.2	3428.732	11,760,000

Source: Self-computed

As far as, the variability is concerned, it has been found that Leh Tehsil has the highest variability in the MPCE with the variance of Rs 13,380,000 and on the other hand, Khaltsi tehsil with the variance of Rs 445,900 has the lowest variability. The high variability could be caused by high variation in the sources of income across tehsil Leh. The other reason could be presence of urban areas in the tehsil rather the Leh tehsil is the only tehsil in the entire district.

The table 4 shows the MRP based MPCE estimates across tehsils. The mean value of the district is Rs 23,177. So, out of the selected tehsils, tehsil Saspol has got the highest mean (MPCE) i.e., Rs 32,571 and on the other hand, Kharu has the lowest MRP based mean (MPCE) i.e., Rs 9167.7. While comparing with the district's average (mean) MPCE, it has been found that there are only two tehsils namely Saspol and Leh which have mean (MPCE) above the district's average. On the other hand, the rest of the Tehsils namely Khaltsi, Nyoma, Kharu and District have mean values lower than the district's average (mean) MPCE. Whereas, the variances are

Table 4: Tehsil Wise MPCE Estimates across Tehsils as per MRP Reference Period (in Rs.)

Tehsils	N (Sample Size)	Minimum	Maximum	Sum	Mean	Standard Deviation	Variance
Leh	233	1625.00	158000	6120,000	26385	23061.64022	531800,000
Khaltsi	53	1000.00	23000	1170000	22013	33204.75627	1103000,000
Nyoma	42	40000	56250	525000	12496	10080.14602	101600,000
Kharu	22	1400	37500	202000	9169.7	10279.45456	105700000
Disket	84	464.29	336000	1750000	20811	39643.27407	13540000
Saspol	136	3000	85714.29	1170000	32571	20894.57995	436600000
Durbuk	30	1875.00	72500.00	636000	21184	19910.13054	394600,000
Total (Leh District)	500	464.29	336000	11600000	23177	26828.16	719800,000

Source: Self-computed

concerned, the variability of the MRP based MPCE is found to be the highest in Khaltsi tehsil with a variance value of Rs 11,03,000,000 and the Disket tehsil has the lowest variability across the tehsils, with a variance value of Rs 13,540,000. Whereas, the district's variance is Rs 7,19,800,000.

Therefore, the study reveals that the MRP based MPCE has higher variability than the URP based. In other way to put this is, more variation can be seen in the context of spending on these non-food items (i.e., five infrequently brought items like clothing, education, health and durable goods) is very significant factors in assessment of poverty in a region.

In order to make the findings more profound, the study runs ANOVA test to see if there are significant differences in the means of monthly per capita expenditure among tehsils. This test has been used to see the equality of means across groups (tehsils) and the result has been displayed in the Table 5. The table confirms that there are significant differences in the means (MPCE) among tehsils irrespective of reference periods. The second hypothesis has been validated.

Table 5: ANOVA Test Results across Tehsil Groups (URP and MRP)

Reference Periods	ANOVA Test	Sum of Squares	df	Mean Square	F	Sig.
URP	Between Groups	4.146e8	6	6.910e7	6.249	.000***

	Within Groups	5.452e9	493	1.106e7		
	Total		493			
MRP	Between Groups	1.529e10	6	2.548e9	3.653	.001**
	Within Groups	3.439e11	493	6.975e8		
	Total	3.592e11	493			

Source: Self-Computed

Note: * significant at 1 % level of significant, ** significant at 5 % level of significant**

The third objective is to identify the rural-urban gap in the MPCE pattern and this corresponds to the third hypothesis i.e., The mean consumption expenditure is higher in urban areas than in rural areas of the district. The Table 6 shows the comparative descriptive statistics both URP and MRP based between rural and urban areas of the district. As per URP based MPCE, the urban areas have higher mean i.e., Rs 5838.2 as compared to the rural areas i.e., Rs 3393.4. Thus, the third hypothesis has been accepted here. In other words, the urban areas have higher mean MPCE than rural areas. This is also true for the MRP based MPCE, the mean values are Rs 22097 and Rs 28504 in rural and urban respectively. Thus, 3rd hypothesis has been accepted irrespective of whether mean MPCE is URP or MRP based.

Table 6: Sector wise MPCE Estimates (Leh District) across URP and MRP Reference Periods

Sectors	Method of Reference Periods	N (Sample Size)	Minimum	Maximum	Sum	Mean	Standard Deviation	Variance
Rural	**URP**	414	133.33	25,000	11,400,000	3393.4	3462.04236	10,650,000
	MRP	5414	464.29	336,000	9,150,000	22097	27777.66919	7,71,600,000
Urban	**URP**	85	1200	17,500	488,000	5738.2	3577.88237	12,800,000
	MRP	85	2625	125,000	2,420,000	28504	21145.62987	4,47,100,000

Source: Self-computed

However, one surprising feature observed here is the rural areas have higher variability of the MRP based mean than urban areas. This is due to the fact that spending on durables and infrequent expenditure (measured using 365day recall) are heterogenous and less evenly distributed across households. The rural income is high diversified, due to which the incomes are highly seasonal and uncertain, affecting consumption patterns and smoothing ability.

Table 7 Male versus Female Headed HHs MPCE Estimates (Leh District) across URP and MRP Reference Periods (in Rs.)

Households (HHs)	Method of Reference Periods	N (Sample Size)	Minimum	Maximum	Sum	Mean	Standard Deviation	Variance
Male Headed HHs	**URP**	396	133.33	25,000	1,580,000	3988.2	3392.65122	1,15,100,000
	MRP	396	464.29	336,000	9,520,000	24030	27838.41202	7,75,000,000

Female Headed HHs	**URP**	104	225.00	25,000	315,000	3031.6	3475.98944	12,080,000
	MRP	104	466.67	158,000	207,000	19927	22393.68521	5,01,500,000

Source: Self-computed

In order to look into the gender perspective of the problem, the study compared the MPCE estimates between male- and female headed households. The results have been shown in the Table 7. The estimates tell that there are 396 sampled households which are headed by males and 104 by females. The male headed households have higher mean MPCE i.e., Rs 3988.2 (URP) and Rs 24030 (MRP) than the female headed households i.e., Rs 3031.6 (URP) and Rs 19927 (MRP). Whereas, the variability of means is concerned, it has been found that male headed households have higher variance i.e., Rs 1,15,100,100 (URP) and Rs 7,75,100,100 (MRP) than their female counterpart households. Thus, the fourth hypothesis has been validated and this says that mean (MPCE) is higher in male-headed households than female-headed households. The some of the reasons for the relatively lower mean MPCE are, these female heads may face mobility constraints, lower educational attainment leads to lower regular employment opportunities. Therefore, the male headed households tend to have higher mean MPCE. Hence, the fourth hypothesis has been validated, in other words, male headed households have higher mean MPCE than their female counterpart irrespective of URP and MRP reference periods.

However, in order to know whether if the sector influences the MPCE across male- and female headed households or not. The study attempts to estimate the mean MPCE across URP and MRP methods, across the rural and urban sectors. The Table 8 shows the URP based MPCE comparison between male and female headed households across rural and urban sectors. From the table, it has been found out that out of total 396 male headed-households, 324 households are from rural and 71 households are from urban areas. Whereas, among 104 total female-headed households, 90 are from rural and 14 are from urban areas.

As far as, the mean MPCE is concerned, the male-headed households which are from urban areas have higher estimate than the male-headed households from rural areas. The former has the mean MPCE of Rs 5945.1 and the latter has the mean value of Rs 3656.5. whereas, among female headed households, the urban households have higher mean than rural households. In other words, it is states that urban households have higher mean MPCE than the rural households irrespective of the genders of the heads. The variability is also higher for the urban households than the rural households irrespective of the genders of the heads.

Table 8 Male versus Female Headed Households MPCE Estimates (Leh District)(URP Refernce Period) (In Rs.)

Households (Hhs)	**SECTORS**	**N (Sample Size)**	**Minimum**	**Maximum**	**Sum**	**Mean**	**Standard Deviation**	**Variance**
Male Headed Hhs	**RURAL**	324	133.33	25,000	1,160,000	3565.5	3207.96739	10,290,000
	URBAN	71	1200	17,500	422,000	5945.1	3563.19969	12,700,000
Female Headed Hhs	**RURAL**	90	225.00	25,000	250,000	2773.8	3405.10071	11,590,000
	URBAN	14	1400	13,000	65,600	4689.3	3596.10192	12,930,000

Source: Self-computed

Table 9 Male versus Female Headed Households MPCE Estimates (Leh District) (MRP Reference Period) (in Rs.)

Households (Hhs)	SECTORS	N (Sample Size)	Minimum	Maximum	Sum	Mean	Standard Deviation	Variance
Male Headed Hhs	RURAL	324	464.29	336,000	7,350,000	22693	28904.32835	835,500,000
	URBAN	71	2625	125,000	215,000	30220	21686.08398	470,300,000
Female Headed Hhs	RURAL	90	466.67	158,000	1,800,000	19949	23292.50576	54,2500,000
	URBAN	14	5000	62,500	277,000	19786	16090.34703	258,900,000

Source: Self-computed

However, the MRP based monthly per capita expenditure has a different story and the estimates have been shown in the Table 9. The MRP based MPCE is higher for urban male headed-households (Rs 30220) than the rural male-headed households (Rs 22693) and whereas, the rural female headed households have higher mean MPCE than urban female headed households, and this could be due to high diversification among the rural households whose heads are female. On the other hand, the variability is concerned, it has been found that rural households have higher variance than urban households irrespective of genders of the households. This again due to the fact that, the income diversification is very high in rural areas than urban areas.

MAIN FINDINGS AND CONCLUSION

While assessing the pattern of MPCE using URP and MRP methods, the study finds that the mean MPCE is significantly higher when calculated using the MRP method compared to the URP method. The MRP-based data also shows greater variability in MPCE, indicating that infrequent and high-value expenditures are better captured under this method. The higher variability suggests that households in Leh spend significantly on non-food items such as education, health, and durable goods, which are often missed or underreported in URP-based data. While identifying the disparities in MPCE across tehsils of Leh district, the study finds notable disparities in consumption expenditure among the tehsils. Some tehsils, like Saspol and Leh, have mean MPCE above the district average, while others such as Nyoma and Kharu fall below it. Variability also differs significantly, with some tehsils showing much higher variance, possibly due to urbanization or income diversity. ANOVA results confirm that these differences in MPCE across tehsils are statistically significant. As far as the rural-urban difference in MPCE is concerned, the urban households exhibit higher mean MPCE than rural households under both URP and MRP methods. However, rural households show higher variability in MPCE under the MRP method, likely due to uneven and seasonal income sources. This highlights the diverse economic activities and uneven consumption capacity in rural areas. To analyze gender-based disparities in MPCE, the study finds male-headed households have higher mean MPCE than female-headed households in both URP and MRP frameworks. The variability is also generally higher in male-headed households, although rural female-headed households exhibit higher mean MPCE than their urban counterparts under the MRP method. This indicates potential resilience or diversification among female-headed rural households. The study concludes that the choice of recall period significantly impacts the estimation of household consumption expenditure, with the MRP method providing a more comprehensive picture by capturing high-value, infrequent expenses. There exist clear spatial disparities in consumption patterns across tehsils in Leh, driven by factors such as genders and income variability. Rural areas lag behind urban areas in average consumption but show higher variation due to seasonal and diverse income sources. Gender disparities are also evident, with female-headed households generally consuming less, though exceptions are found in rural areas where income diversification benefits some women-led households. These findings underscore the importance of adopting nuanced, location- and gender-sensitive policy approaches to effectively address inequality and improve welfare outcomes in the region.

REFERENCES

1. Addai, K. N., Ng'ombe, J. N., & Temoso, O. (2022). Food poverty, vulnerability, and food consumption inequality among smallholder households in Ghana: A gender-based perspective. Social Indicators Research, 163(2), 661–689. https://doi.org/10.1007/s11205-022-02913-w
2. Agyepong, L., Kuuwill, A., Kimengsi, J. N., Darfor, K. N., Ampomah, S., Evans, K., … Charles, A. K. (2024). Household Consumption Expenditure Determinants Across Poverty Subgroups in Sub-Sahara Africa: Evidence from the Ghanaian Living Standard Survey. Journal of Poverty, 1–26. https://doi.org/10.1080/10875549.2024.2338164
3. Ajuruchukwu, O. B. I., & Sanelise, T. (2016). The determinants of household poverty in South Africa. Africa's Public Service Delivery and Performance Review, 4(4), 516–538. https://doi.org/10.4102/apsdpr.v4i4.137
4. Almas Heshmati, Esfabdiar Maasoumi and Guanghua Wan (2019): An Analysis of the Determinants of Household Consumption Expenditure and Poverty in India. Economies, 7, 96; doi;10.3390/economies7040096
5. Ampaw, S., Nketiah-Amponsah, E., Agyire-Tettey, F., & Senadza, B. (2020). Distributional analysis of rural-urban household healthcare expenditure differentials in developing countries: Evidence from Ghana. International Journal of Development Issues, 19(3), 359–375. https://doi.org/10.1108/IJDI-07-2019-0126
6. Arapova, E. (2018). Determinants of household final consumption expenditures in asian countries: A panel model, 1991–2015. Applied Econometrics and International Development, 18(1), 121–140.
7. Ekong, C. N., & Effiong, U. E. (2020). Economic determinants of household consumption expenditures in West Africa: A case study of Nigeria and Ghana. GSJ, 8(9), 385–398.
8. Gradín, C. (2009). Why is poverty so high among afro-brazilians? A decomposition analysis of the racial poverty gap. The Journal of Development Studies, 45(9), 1426–1452. https://doi.org/10.1080/00220380902890235
9. Hone, Z., & Marisennayya, S. (2019). Determinants of household consumption expenditure in Debremarkos Town, Amhara region, Ethiopia. American Academic Scientific Research Journal for Engineering, Technology, and Sciences, 62(1), 124–144.
10. Hossain, M. J., & Al-Amin, A. K. M. A. (2019). Non-farm income and consumption expenditures in rural Bangladesh: Empirical evidence from multilevel regression modelling. Journal of Quantitative Economics, 17(2), 377–396. https://doi.org/10.1007/s40953-018-0134-7
11. Mignouna, D. B., Abdoulaye, T., Alene, A., Manyong, V. M., Dontsop, P. N., Ainembabazi, J. H., & Asiedu, R. (2015). A microeconometric analysis of household consumption expenditure determinants in yam-growing areas of Nigeria and Ghana. Tropicultura, 33(3), 226–237.
12. Nguyen, G. (2020). Changes in the distribution of household consumption in Southeast Asia. Economic Change and Restructuring, 53(1), 39–60. https://doi.org/10.1007/s10644-018-9236-7
13. Twerefou, D. K., Senadza, B., & Owusu-Afriyie, J. (2014). Determinants of poverty among male-headed and female-headed households in Ghana. Ghanaian Journal of Economics, 2(1), 77–96.