Research on Humanities and Social Sciences
ISSN 2224-5766 (Paper) ISSN 2225-0484 (Online)
Vol.12, No.18, 2022

Factors Affecting Consumption Expenditure and Regional Comparison in Ethiopia

TEGEGN NIGUSSIE
Woldia University, Woldia

TADESSE WOLDIE
Bisrat College, Shewarobit

ABEBE TADESSE
Bisrat College, Shewarobit
Email: -tegegn2004@gmail.com

Abstract
This study evaluated factors affecting households consumption expenditure in Ethiopia using cross-sectional survey data collected from 6770 households in Ethiopia by World Bank in 2018/19 fiscal year. By applying quantile regression model, the study found that household's consumption expenditure was affected by different explanatory variables either positively or negatively at different significant level. Out of the dependent variables that were significantly affecting household consumption expenditure were place of residence, family size, region of the family residence and access to credit. This variables are affecting were affecting either positively or negatively households consumption expenditure at different significant level at different quantiles. Place of residence (urban or rural) in all quantiles affects consumption expenditure negatively. That means households live in urban areas have less consumption expenditure than rural areas. Family size also affects household consumption expenditure at all quantile level negatively. There is high consumption expenditure differences among regions. Especially Amhara region had a less consumption expenditure as compared to others regions. Access to credit had a positive effect on household consumption expenditure and it had a significant effect at 75th quantile level. As per the research results the researcher recommended as more research may be required to be carried out to assess factors affecting households consumption expenditure in Ethiopia which is the major concern of policy makers in Ethiopia.
Keywords: Consumption, Expenditure, quantile regression and Ethiopia
DOI: 10.7176/RHSS/12-18-01
Publication date: September 30th 2022

1. INTRODUCTION

1.1. Background

Household expenditure is defined as the sum of household consumption expenditure and the non-consumption expenditures of the household. The latter are those expenditures incurred by a household as transfers made to government, non-profit institutions and other households, without acquiring any goods or services in return for the satisfaction of the needs of its members. Household expenditure represents the total outlay that a household has to make to satisfy its needs and meet its "legal" commitments (Pistaferri, 2016).

Consumption is the most important component of national income accounting and the aggregate demand. It is the ultimate economic activity on which the welfare of the economy depends and constitutes a major portion of disposable income of the households on micro economic level. Household consumption plays an important role in the socio-economic development. Peoples reasonable consumption patterns and moderate consumption size conducive to sustain economic health of scale of growth, and this is the concrete embodiment of people's living standards. Household consumption expenditures consist of the market prices of all goods and services purchased by the households to satisfy their needs and wants. It includes all durable and non-durable goods such as cars, household washing machines, television etc. Household consumption expenditures excludes purchases of residences but includes owner-occupied residences imputed rent (Zehiwot Honea, 2019).

Consumer goods and services are those used by a household to directly satisfy the personal needs and wants of its members. Household consumption expenditure is the value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own-account production, barter or as income in-kind for the satisfaction of the needs and wants of its members. The studies on consumption expenditure are important as it is related to poverty. Consumption expenditure depends on income, level of education, time use, size and pattern of assets, information, and social barriers, the household-decision-making and upbringing globalization, technology. It is widely documented that the poorer and more vulnerable a household, the larger the share of household income spent on food (Ndlovu, 2020).

Levels and composition of food consumption are major determinants of the nutritional wellbeing of

individuals, which in turn, have important implications for health, productivity, and income (Guush Berhane, 2011).

The study was designed to see the factor those affects household consumption expenditure in the region by quantile level to compare the result by quantile level.

1.2. Statement of the problem

Food production, distribution and consumption is of major concern today, this has been a subject of both scientific, social and economic concerns with various researches and diverse researchers looking for answers as regards the issue of food availability, sustainability and food security in line with production, distribution and consumption (Kilima, 2014).

Total consumption expenditure of Ethiopia in percent of GDP was 77.7 percent in 2018/19 which means almost all the product are used for consumption purpose either for private or public (Berhanu, 2020).

To indicate the directions of changes in the pattern of consumptions expenditure there is need to know the composition and quantity of what people in the economy consume, causes of changes in what the people consumed and how this differs from one another among people of different classes in the state. There is no reason to doubt that, the content of consumption expenditure in developing countries may quite different from those of developed countries which may be as a result of many factors that are beyond the scope of this paper. One aspect of development may be on how to improve such consumption content. A common feature of consumption expenditure in developing countries is that commodities for consumption in developing countries consist of "primary" goods, mostly staple food like garri" and other commodities made up of semi processed foods and services (Thomas, 2013).

Ethiopia has shown remarkable progress in reducing poverty in the last two decades. The purchase decisions of the consumers are affected by various factors. Income, prices, distribution of income, educational status of the individuals, occupation, age, and socio-cultural factors are the main ones. Besides these factors, the welfare of the consumer is enhanced when the consumer maximizes the benefit by giving priority to the purchase of the goods and services that avails the most and putting off purchasing the least needed goods and services due to income bound. Thus, differences emerge according to the consumer behaviors and the effects of the factors determining these behaviors. The analysis of consumer behaviors enables the following of both social and demographic factors along with the changes in the cultural structure, and development of policies as a result of these impressions (ÇAĞLAYAN, 2012). The food consumption pattern in different parts of the country varies according to differences in agro-ecological zone, socio-economic status, and tradition, among others (FEKADU, 2018).

Duesenberry has propounded that consumption expenditure depends on income of an individual relative to incomes of others rather than the absolute size of his own income (Duesenberry, 1949). According to Sitotaw and Nigus (2006) cited by (Zehiwot Honea, 2019) in all aspects households face problems to satisfy their needs, because individual are live in the imperfect competitive world. Therefore, the household consumption expenditure in world, continent and country even at regional level are different. This is due to variation of income and other variables among nations and peoples in the world. When individual income increases, consumption and saving also increases. It implies that consumption is determined by household income and other prominent factors which are different from region to region and from place to place.

There for the focus of this study was to understand factors underlying the consumption expenditure in Ethiopia and the regional comparisons of these factors as a basis to inform policy makers on the reasons why there are differences among regions regarding to consumption expenditures. Because the region which has largest expenditure on consumption means has good wellbeing.

1.3. Objective of the study

The general objective of this study was to assess factors affecting consumption expenditure and regional comparison in Ethiopia.

Specific objectives of the study

- To analyze factors affecting consumption expenditure in Ethiopia.

2. LITERARE REVIEW

In this chapter, theoretical background, basic concepts and definitions of consumption expenditure, about food, nonfood and education expenditure in Ethiopia are presented in detail and précises way. Definitions and approaches to quantile regression and empirical studies are discussed.

2.1. Theories of consumption

Absolut income hypothesis: Early Keynesians were enthusiastic about Keynes's innovation for two reasons. The first reason is that if there is a stable relationship between consumption and income, then the amount of

investment, government spending and taxes necessary to achieve the full employment can be determined. Secondly, the early empirical studies based on cross-section data appeared to confirm the relationship. However, after World War II, several economists cast doubt on the usefulness and validity of Keynes consumption function. The reason for this is that the Keynesian consumption function was unable to predict the post war values. The estimations made by Keynes were much less than the actual amounts. During this time Simon Kuznet published data for the United States between 1869 and 1938 which appeared to be linear, and the line started from the origin (Kirill Breido, 1997).

Relative income hypothesis : Duesenberry contended that the utility of consumers depended not so much on their absolute income (Keynes' view), but rather on their relative income, both current income relative to previous income and current income relative to the income of others in society with whom the consumer feels in competition with. Consequently, economy-wide increases in absolute incomes which do not affect the relative income distribution will have little impact on the behavior of consumers in terms of the share of income consumed. The latter is Duesenberry's explanation for the stability of the average propensity to consume over long periods of time (Duesenberry, 1949).

Permanent income hypothesis: Friedman put forward the thesis that a household's consumption was proportional to its permanent income i.e. the average income which a household could reasonably expect to earn over its particular planning horizon. This hypothesis grew out of the long observed fact that incomes other than current disposable income affected current patterns of consumption. The permanent income hypothesis can explain both the long-run constancy of the consumption to income ratio (i.e. constancy of APC) while at the same time explaining why this ratio varies inversely with income during cyclical fluctuations (Friedman, 1957).

Life cycle hypothesis: Modigliani and his collaborators, most notably Ando, formulated the life-cycle hypothesis (LCH). The LCH is similar in many aspects to the PIH in that again, as with the PIH, consumption is a constant proportion of income. However, according to this view consumption is dependent on the position of the individual in the life cycle, with the objective of the average consumer being to even out consumption over a lifetime in which income fluctuates substantially depending on age. In the young adulthood and retirement phases, when income received is low, consumption patterns are maintained through recourse to borrowing or by drawing down past savings. Consequently in these phases of the life cycle, consumption is a high proportion of income. As regards the middle phase, when income tends to be relatively high, savings are built up to finance post-retirement consumption with the result that a smaller proportion of income is consumed in this phase. This generates the well documented hump-shaped pattern of savings over a lifetime (Modigliani, 1954,).

2.2. Consumption expenditure in Ethiopia

Consumption expenditure on different food, non-food and education are generally used as a main yardstick for measuring the standard of living in developing nations. Study of temporal changes in consumption patterns provides an insight into status of welfare changes and is helpful in planning future investment decisions. Understanding whether there is change in food and non-food expenditure share in total household spending provides important information for policy makers. Increasing food expenditure share means households have less resource to spend on other non-food expenditures such as education, health, and consumer durables. Individual consumers are assumed to be in the best position to judge their own needs and preferences and to make their own choices. It is unbiased to assume that people know what they are looking for and have reasons for their preferences when they choose one consumption pattern over another. Yet millions of people faces too narrow a range of consumptions, which prevents them from enlarging their capabilities. They may not be able to get enough food, may lack health care services or may have little access to transport beyond their own feet. There are many factors causing these constraints on consumption option of the households. Income is not the only one. Other factors include household size, age of the head of household, education of the head of household etc. (Zehiwot Honea, 2019).

It is the total numbers of household members and the major determinants of consumption expenditure in the household. It appears that as age and family size increase the expenditure shares for food and beverages also increases. The more the number of people in a household the more food consumed causing an increase in the share of expenditure for food. The effect of the size of the household has a positive effect on goods and services which are considered basic necessities; goods such as food, health and utilities (Berhanu:, 1999).

2.3. Empirical literature reviews

The research conducted by (Tesfaye, 2005) entitled with the analyzed household consumption behavior in Addis Ababa by using 871 households as a sample size with simple random sampling technique. His methodology was both descriptive and econometric. The variables that he used as explanatory were household's income and family size. Accordingly, both explanatory variables affect household consumption positively. As he mentioned in his paper subsequent studies by (Steyn, 2004) and (Williams, 2004) using this law of consumption have proved that the share of food consumption in poor countries is higher than that in rich countries and even within a country it

declines over time as its national income raised. Several studies were also attempted to drive generalization about the other categories of consumption, particularly for housing and clothing but the result lack harmony by themselves to provide a universally accepted law like the one for food. Additionally, (Kuma, 2010) analyzed changes in consumption patterns in urban Ethiopia, Addis Ababa by using working lesser demand function as a Dependent Variable, per capita income and other demand factors like dependence ratio, age and family dummy As Independent Variables. He used both primary and secondary data. According to his finding, age affects food demand negatively.

3. RESEARCH METHODOLOGY

The research method is the important part of a research, because it helps researchers to decide how to achieve the specified objective, what data to collect and to use, and how to get the data and analyze the data in order to solve the target problems. Therefore, it needs much consideration on choosing the appropriate methods, which can provide the desired outputs. So this part of the paper discusses the data and research methodology section by section.

3.1. Source of data

The data that has been used in this study on Ethiopian households has been obtained from the World Bank household survey 2018/19. A household survey is household level survey which is representative sample of Ethiopian economy households. The survey covers a broad range of information related to the households such as family size, education status of the household head, hosing status and so forth. Usually household survey is carried out these micro level surveys in cooperation with households and government agencies which are concerned to the households, but confidentiality is strictly followed. Moreover, household were used stratified random sampling methodology. In this method, household units are grouped within homogenous groups and simple random samples are selected within each group (Rehman, 2016).

The World Bank's household survey 2018/19 collected data from households in every region of the world by using a global methodology that includes standardized survey instruments and a uniform sampling methodology. The qualitative and quantitative data collected through the surveys connect a country's household characteristics with household's livelihoods and living standards. These Survey is useful for both policymakers and researchers. The surveys are repeated over time to track changes and benchmark the effects of reforms on firms' performance.

3.2. Methods of data analysis

The data were analyzed using both descriptive and econometric model. The descriptive statistics methods of data analysis refer to the use of percentages, means, standard deviations, t-test, χ2-test, F-test and maps in the process of examining and describing household's consumption expenditure by using the data collected by World Bank in 2018/19 on households in Ethiopia.

The dependent variable in the analysis is the total consumption expenditure. The most commonly used the relationship between the dependent and independent variables are linear, semi logarithmic, logarithmic and working-lesser models.

Quantile regression was introduced by Koenker and Basset (1978) for the purpose of complementing ordinary regression. In ordinary regression what is modeled is the conditional mean of a random variable Y given some vector of explanatory variables x = (1; x1; x2; :::; xk) whereas in quantile regression what is modeled are quantiles of the conditional distribution of Y given x: The reported reasons for the introduction of quantile regression are that:

1. It is robust to the violation of the usual ordinary regression model assumptions and outliers, and
2. It enables capturing informative trends in the tails of the conditional distribution of Y (the dependent variable) given x (the independent variables).

To determine factors those affect household consumption expenditure, a multiple linear quantile regression is applied.

The estimated quantile regression is:

$$Q_\tau(Y_i/X_i) = X_i\beta_\tau + \varepsilon_{\tau i} \quad (1)$$

Where Y is the logarithm of total consumption expenditure is the vector of independent variables, is the vectors of coefficients of the independent variables. We analyzed conditional consumption expenditure on OLS and at 5 selected quantiles: 0.1, 0.2, 0.25, 0.50, and 0.75 which will be denoted by, Q10, Q20 …….. and Q75. The quantile effect of categorical variables is calculated based on Kennedy (1981) approach.

3.3. Specification of variable

Household consumption expenditure is obtained by adding reported household expenditure on food, non-food

and education expenditure. The definition of consumption is quite comprehensive as it incorporates all food and non-food items consumed and spend on education. So for this analysis we use consumption expenditure as dependent variable by changing it to 5 quantiles.

3.4. Independent variables

The independent variables included in the model are presented in table1. This independent variables are included in our study multiple linear quantile regression is applied to identify factors those affect household expenditure

Table 1 Summary of hypothesized explanatory variables included in the model

Variables	Type	Definitions	Description
	Independent variables		
PR	dummy	Place of residence	PR=1 if urban, 0 otherwise (rural)
Region	categorical	Region of the household	Region=1 if Afar,0 otherwise (Tigray) Region=1 if Amhara, 0 otherwise Region=1 if Oromia, 0 otherwise Region=1 if Somali, 0otherwise Region=1 if Benishangul Gumuz, 0 otherwise Region=1 if SNNP, 0 otherwise Region= 1 if Gambela, 0 otherwise Region=1 if Harar , 0 otherwise Region= 1 if Addis Ababa, 0 otherwise Region=1 if Dire dawa ,0 otherwise
Credit	Dummy	Access to credit	Credit=1 if Yes, 0 otherwise (No)
Mobile	Dummy	Use of mobile	Mobile=1 if use, 0 otherwise
familysz	continues	Family size of household	Number of the household member
	Dependent variable		
hhcaexpe	Continuous	Household expenditure	Amount of expenditure per each income group

Source: own definition, 2021

4. RESULT AND DISCUSSION

This chapter presents the findings factors affecting consumption expenditure and regional comparison in Ethiopia using both descriptive and econometric analyses.

4.1. Descriptive results

Table 2 Descriptive statistics of the sample households for dummy and categorical variables

Variables		Frequency	Percentage
Place of residence	Urban	3655	53.99
	Rural	3115	46.01
Total		6770	100
Region	Tigray	676	9.99
	Afar	524	7.74
	Amhara	750	11.08
	Oromia	753	11.12
	Somali	610	9.01
	B. Gumuz	364	5.38
	SNNP	691	10.21
	Gambela	495	7.31
	Harar	550	8.12
	Addis Ababa	778	11.49
	Dire Dawa	579	8.55
Total		6770	100
Access to credit	Yes	810	12.08
	No	5952	87.92
Total		6770	100
Use of mobile	Yes	3664	54.13
	No	3105	45.87
	Total	6769	100

Source: own results, 2021

Place of residences: As we have seen on the above table 2 out of the total sampled household 3655 (53.99 %) were lived in rural areas of Ethiopia and the rest 3115 (46.01 %) were lived in the urban area of Ethiopia.

Region of the respondents: the World Bank survey was collected from the whole region in Ethiopia. Based on the analysis that presented on the above table 2 , Tigray 676 (9.99 %), Afar 524 (7.74%), Amhara 750 (11.08), Oromia 753 (11.12%), Somali 610 (9.01%), Benishangul Gumuz 364 (5.38 %), SNNP 691 (10.21%), Gambela 495 (7.31%), Harari 550 (8.12%), Addis Ababa 778 (11.49%) and Dire Dawa 579 (8.55%). The sample household were selected by using proportional sampling in rural areas and urban areas.

Access to credit: Access to credit was on independent variable that used for this study. The result on table 2 revealed that out of the sample households that were assessed in2018/19, 810 (12.08%) households had an access of credit from different formal financial sources. Because credit is one source of finance for improve their consumption.

Use of mobile: Based on the descriptive analysis that is shown on the above table 2 out of the total respondents of the total sampled house holds 3664 (54.13%) were used mobile for sharing information and 3105 (45.87%) were not used mobile for communication purposes.

Table 3 Descriptive statistics of the sample households for continues variables

Variable	Observation	mean	Minimum	Maximum
Family size	6770	4.24	1	19

Source: own results, 2021

Family size: The other independent variable used in the analysis was family size. Based on the descriptive result on table 3 the mean family size of the sample household was 4.24 with the minimum number of family size 1 and the maximum was 19.

4.2. Econometric Results

Table 4 Quantile regression estimation results

Independent variables		OLS	Q0.1	Q0.2	Q0.25	Q0.5	Q0.75
Place of residence		-0.91***	-0.83***	-1***	-1.25***	-1.21***	-0.81***
		(0.03)	(0.65)	(0.05)	(0.053)	(0.043)	(0.03)
Family size		0.24***	0.83***	0.25***	0.25***	0.29***	0.18***
		(0.006)	(0.17)	(0.009)	(0.01)	(0.009)	(0.007)
Region	Afar	0.095	-0.33**	0.25**	0.25**	-0.07	0.007
		(0.07)	(0.14)	(0.10)	(0.11)	(0.09)	(0.7)
	Amhara	-0.30***	-0.17	-0.25***	-.0.25**	-0.43***	-0.18**
		(0.06)	(0.13)	(0.09)	(0.12)	(0.084)	(0.07)
	Oromia	0.23***	0.33***	0.25***	0.25***	0.14*	0.09
		(0.06)	(0.13)	(0.09)	(0.10)	(0.083)	(0.07)
	Somali	0.09	0.17	0.0004	0.25**	0.07	0.0006
		(0.07)	(0.14)	(0.09)	(0.11)	(0.09)	(0.08)
	B. Gumuz	0.09	0.0005	0.0034	0.25**	0.07	0.00032
		(0.07)	(0.16)	(0.11)	(0.13)	(0.1)	(0.08)
	SNNP	-0.197***	-0.17	-0.25***	-0.25**	-0.36***	0.09
		(0.062)	(0.13)	(0.09)	(0.11)	(0.09)	(0.07)
	Gambela	-0.09	-0.17	-0.25**	-0.25**	-0.14	0
		(0.07)	(0.14)	(0.1)	(0.12)	(0.09)	(0.076)
	Harar	0.46***	0.67***	0.5***	0.5***	0.36***	0.27***
		(0.07)	(0.14)	(0.1)	(0.11)	(0.09)	(0.074)
	Addis Ababa	0.39***	0.67***	0.5***	0.5***	0.21**	0.18**
		(0.06)	(0.13)	(0.095)	(0.11)	(0.09)	(0.07)
	Dire Dawa	0.33***	0.5***	0.5***	0.5***	0.07	0.09
		(0.07)	(0.14)	(0.095)	(0.11)	(0.09)	(0.073)
Access to credit		0.09**	-0.0021	-0.001	-0.0005	0.07	0.09*
		(0.04)	(0.09)	(0.065)	(0.07)	(0.06)	(0.05)
Use of mobile		-0.009	0	0	-0.001	-0.003	-0.0006
		(0.028)	(0.06)	(0.042)	(0.05)	(0.04)	(0.07)
Constant		4.6***	2.67***	3.73***	4***	5.14***	5.27***
		(0.7)	(0.14)	(0.99)	(0.11)	(0.9)	(0.07)
Pseudo R2		35.83	12.63	21.8	23.23	26.11	16.72

Source: own results, 2021

*, **and *** means significant at10%, 5% and 1% probability level respectively.

The quantile regression analysis was employed to examine factors affecting consumption expenditure in Ethiopia. The result also helps us to understand which variables are more affected the consumption decision of consumers. Based on these, the above table 4 shows the summarized regression results. The interpretation of the result presented as follows.

Place of residences: - According to the information from the sample households, place of residence of the household has an influence on households consumption expenditure decision. When the data were collected place of residence of households were categorized as rural dwell and urban dwell of households. Based on the result presented on the above table 4 place of residence had a negative and was significant at 1% probability level at all quantiles. That means those who lived at urban areas spend less on different consumption as compared to live at rural areas of Ethiopia. The study conducted by (Ndlovu, 2020) found that Urban residents' consumption expenditure is less than Rural residents.

Family member: - This is the total number of household members living together and it is continues variable. That means a greater household size represents a bigger demand for consumption (Kilima, 2014). Based on the result of the analysis presented on the above table 4 revealed that as family size increases consumption also increases in all quantiles. In all quantiles family size and consumption has a positive relationship and significant at 1% probability level.

Region of residences: - the other independent variable that was used in the quantile regression analysis was region of residences. The variable was categorical variable and used Tigray region as the base variable. Based on the result the Afar region's consumption expenditure was less than and significant at 10^{th} quantile by 33% at 5% significant level and more than at 20^{th} and 25^{th} quantile by 25% each and significant at 5% significant level. Consumption expenditure of Amhara region was found that at 20th, 25^{th}, 50^{th} and 75^{th} less than Tigray region consumption expenditure by 25% at 20^{th} and 25^{th} quantile and by 43% and 18% at 50^{th} and 75^{th} quantiles respectively. Between the regions it was found that at 20^{th} and 50^{th} quantiles the difference was statistically significant at 1% probability level. At 25^{th} and 75^{th} quantiles the difference was significant at 5% probability level. Consumption expenditure of Oromia was more than Tigray region consumption expenditure at 10^{th}, 20^{th}, 25^{th} and 50^{th} quantiles by 33%, 25%, 25% and 14% respectively. The differences were significant at 1% probability level at 10^{th}, 20^{th} and 25^{th} quantiles and at 10% probability level at 50^{th} quantile. Consumption expenditure of Somalia region and Benishangul Gumuz region were more than Tigray region consumption expenditure at 25^{th} quantile by 25% and statistically significant at 5% probability level. Consumption expenditure of SNNP region was less than Tigray region consumption expenditure at 20^{th}, 25^{th} and 50^{th} quantiles by 25% and 36% respectively. The difference was significant at 1% probability level at 20^{th} and 50^{th} quantile and at 5% probability level at 25% quantile. Consumption expenditure at Harari region was more than Tigray region consumption expenditure at all quantiles by 67%, 50%, 36% and 27% respectively and was significant at 1% probability level. Consumption expenditure of Addis Ababa was more than Tigray region's consumption expenditure at all quantiles by 67%, 50%, 21% and 18% respectively. The difference was significant at 1% probability level at 10^{th}, 20^{th} and 25^{th} quantiles and at 5% probability level at 50^{th} and 75^{th} quantiles. Consumption expenditure of Dire Dawa was more than consumption expenditure of Tigray region consumption expenditure at 10^{th}, 20^{th} and 25^{th} quantiles by 50% each and was significant at 1% probability level.

Access to credit: - Credit is generally defined as a contract agreement in which a borrower receives a sum of money or something of value and repays the lender at a later date, generally with interest which has a positive effect on consumption (Rogg, 2002). Based on the analysis result credit has a positive effect on households consumption expenditure at the 75^{th} quantile and significant at 10% significant level. That means credit has a consumption smoothening effects on households.

4.3. Regional comparison of consumption expenditure

Table 5 Region wise expenditure for different categories of consumption

Region	Food consumption expenditure	Non-food consumption expenditure	Education expenditure	Faith expenditure	Utility expenditure
Tigray	35519.45	9656.552	1305.416	4585.538	1979.876
Afar	39610.8	7936.38	523.2653	2392.198	2288.107
Amhara	29595.57	6987.835	639.396	3132.064	1247.568
Oromia	43854.44	7438.117	1038.445	2421.833	1397.323
Somali	50416.36	9561.936	1482.141	3341.384	2633.036
B. Gumuz	39651.03	7152.948	1235.203	2869.143	1587.363
SNNP	38855.88	7660.635	1406.854	3218.883	1290.53
Gambela	43218.55	8163.143	1354.408	3740.113	3002.206
Harar	53838.16	13020.57	2434.218	3980.08	2900.945
Addis ababa	44338.47	19587.17	8224.317	10782.18	7359.116
Dire dawa	47559.81	11787.82	2400.867	5378.363	3258.238
Total	42106.24	10121.75	2147.988	4339.127	2702.283

Source: own results, 2021

Household's consumption expenditure is classified in to five groups. In this categories there is a huge differences in each spending's groups among regions. Based on the result of the analysis each spending are presented as follows.

Food consumption expenditure:- Harari region spends more for food consumption items as compared to other regions. Its spending is 53838.16 birr per years per households and followed by Somali region with 50416.36 birr and Dire Dawa city administration with 47559.81 birr per year per households.

Nonfood consumption expenditure:- regarding to this category of expenditure Addis Ababa is leading by 19587.17 birr per year per households and followed by 13020.57 birr by Harari region and 11787.82 birr per year by Dire Dawa .

Education expenditure:- Based on the result presented on the above table education expenditure is high in Addis Ababa which is 8224.317 birr per year per household and followed by 2434.218 birr per year household in Harari region and 2400.867 birr per year household in Dire dawa.

Faith expenditure: - The other expenditure category is faith expenditure. In faith expenditure Addis Ababa residents are spent 10782.18 birr per year per household and Dire dawa residents spent 5378.363 birr per year per household and Tigray region residents spent 4583.538 birr per year per household.

Utility expenditure: - Based on the result Addis Ababa residents also spent more as compared to other regions and Dire dawa and Gambela region are put at the 2nd and 3rd rank by 7359 birr per year per household and 3002.206 birr per year per household respectively.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary and conclusion

This research was conducted on factors affecting consumption expenditure in Ethiopia by using a cross sectional data that has been collected by 2018/19 fiscal year. The primary data for this study collected from 6770 households was used in this analysis. The household survey was done by World Bank intensively by using sampling techniques to assure the reliability of the data. This paper had used a quantile regression model to analyze factors affecting households consumption expenditure in Ethiopia. The reported reasons for the introduction of quantile regression are that: It is robust to the violation of the usual ordinary regression model assumptions and outliers, and it enables capturing informative trends in the tails of the conditional distribution of dependent variable given the independent variable.

The results of the quantile regression model indicated that the consumption expenditure of household in Ethiopia could be affected by different factors. Out of the dependent variables that were significantly affecting household consumption expenditure were place of residence, family size, region of the family residence and access to credit. This variables were affecting either positively or negatively household's consumption expenditure at different significant level at different quantiles. Place of residence (urban or rural) in all quantiles affects consumption expenditure negatively. That means households live in urban areas have less consumption expenditure than rural areas. Family size also affects household consumption expenditure at all quantile level negatively. There is high consumption expenditure differences among regions. Especially Amhara region had a less consumption expenditure as compared to others regions. Access to credit had a positive effect on household consumption expenditure and it had a significant effect at 75th quantile level.

In general it can be concluded as, the empirical result reveals that household's consumption expenditure has affected by different factors and it is still needs further study and balanced the consumption expenditure differences among regions.

5.2. Recommendations

Depending up on the findings of this study, the following recommendations and policy implications are forwarded. The empirical result reveals that household consumption expenditure is affected by different explanatory variables significantly either positively or negatively. Based on the findings the researcher would like to give the following recommendation and policy implications.

- Consumption expenditure is highly affected by family size. That means the household with large family size spends more for consumption rather than saved it. This also affects the countries investment. So as a country there is need of maximum child policy as to restrain excessive children per household which has a negative effect on all aspects of the economy.
- The other variable that could be affected access to credit. Credit has a consumption smoothening role for the household. So for the poor household's government should increase access to credit with a moderate interest rate.

In general more research may be required to be carried out to assess factors affecting consumption expenditure which is the major concern of policy makers in Ethiopia. As well different stockholders who are concerned with consumption expenditure as an indicator of economic growth.

6. REFERENCES

Berhanu, G. K. (2020). Measuring rural poverty among rural households in Gedeo Zone, SNNP Region, Ethiopia. *Journal of Development and Agricultural Economics, 12*(1), 9-16. doi:10.5897/jdae2019.1134

Berhanu:, S. (1999). "Econometric Analysis of Household consumption Expenditure" Thesis for Ph.D. at West Virginia University, 1999r,UK.

ÇAĞLAYAN, b. (2012). A Microeconometric Analysis of Household Consumption Expenditure Determinants for Both Rural and Urban Areas in Turkey.

Duesenberry, J. (1949). Income-consumption relations and their implication in LioydMetzler,editor,income employment and public policy.

FEKADU, M. (2018). Factors influencing consumer infant formula purchasing decision.

Friedman, M. (1957). Introduction to A Theory of the Consumption Function. *ttp://www.nber.org/books/frie57-1*.

Guush Berhane, Z. P., Kibrom Tafere, and Seneshaw Tamru. (2011). Foodgrain Consumption and Calorie Intake Patterns in Ethiopia. Development Strategy and Governance Division, International Food Policy Research Institute, Ethiopia Strategy Support Program II, Ethiopia.

Kilima, A. E. M. a. F. T. M. (2014). Factors Influencing the Consumption of Pulses in Rural and Urban Areas of Tanzania.

Kirill Breido, I. V. T. (1997). Keynesian Theory of Consumption. Theoretical and Practical Aspects.

Kuma, T. (2010). Analysis of Changes in Food Consumption Patterns in Urban Ethiopia (No. 002). Ethiopian Development Research Institute.

Modigliani, F., and Richard H. Brumberg, . (1954,). "Utility analysis and the consumption function: an interpretation of cross-section data," in Kenneth K. Kurihara, ed., PostKeynesian Economics, New Brunswick, NJ. Rutgers University Press. Pp 388–436.

Ndlovu, S. M. G. a. P. P. (2020). Factors Affecting Consumption Expenditure in Ethiopia: The Case of Amhara National Regional State (ANRS). doi:10.31033/ijemr.10.1.3

Pistaferri, L. (2016). Household consumption:Research questions, measurement issues, and data collection strategies

Rogg, C. S. (2002). The impact of access to credit on the saving behavior of microentrepreneurs. Evidence from 3 Latin American Countries.

Steyn, N. P., Mann, J., Bennett, P. H., Temple, N., Zimmet, P., Tuomilehto, J., ... & Louheranta, A. (2004). Diet, nutrition and the prevention of type 2 diabetes. Public health nutrition, 7(1a), 147-165.

Tesfaye, Z. (2005). Analysis of household consumption behavior. Ethiopia AA University.

Thomas, A. (2013). Determinants of Consumption Expenditure in Ekiti State. Department of Economics, Ekiti State University.

Williams, J. H., Phillips, T. D., Jolly, P. E., Stiles, J. K., Jolly, C. M., & Aggarwal, D. . (2004). Human aflatoxicosis in developing countries: a review of toxicology, exposure, potential health consequences, and interventions. The American journal of clinical nutrition, 80(5), 1106-1122.

Zehiwot Honea, S. M. (2019). *Determinants of Household Consumption Expenditure in Debremarkos Town, Amhara Region, Ethiopia.*