

*MASTER'S THESIS*

# CONSPICUOUS CONSUMPTION

An Empirical Analysis of  
Sub-Saharan Africa

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## ABSTRACT

This thesis empirically examines the pattern of Conspicuous Consumption in sub-Saharan Africa. With household data sets from Malawi, Ethiopia and Nigeria, multilevel regressions were conducted to assess the effect of household and context factors on status-seeking consumption. The Conspicuous Consumption factor has been operationalized by a Visibility Index adjusted for this region. The outcomes show that the determinants of Conspicuous Consumption vary for every country. Though, the most apparent findings with respect to the context factors are that 1) in urban areas and 2) areas with high inequality a relatively higher portion of the income is devoted to Conspicuous Consumption. Concerning the household factors, it is found that in general 1) the lower income groups 2) households with a young household head and 3) higher education tend to spend a relatively higher fraction of their income on Conspicuous Consumption. The results of this thesis can contribute to designing policies aimed at diminishing Conspicuous Consumption in developing countries.

## TABLE OF CONTENT

<b>Table of Content .....</b>	<b>3</b>
<b>1 Introduction.....</b>	<b>6</b>
<b>2 Theoretical Model.....</b>	<b>9</b>
2.1 <i>Conspicuous Consumption.....</i>	<i>9</i>
2.2 <i>Conspicuous Consumption and sub-Saharan Africa .....</i>	<i>10</i>
2.3 <i>Conspicuous Consumption and Household factors .....</i>	<i>12</i>
2.3.1 Income .....	12
2.3.2 Gender.....	14
2.3.3 Education .....	14
2.3.4 Age.....	15
2.4 <i>Conspicuous Consumption and Context factors .....</i>	<i>16</i>
2.4.1 Average income level .....	16
2.4.2 Income distribution .....	17
2.4.3 Average education level .....	18
2.4.4 Urbanization .....	18
2.5 <i>Conceptual Model.....</i>	<i>20</i>
<b>3 Methods.....</b>	<b>20</b>
3.1 <i>Data.....</i>	<i>20</i>
3.2 <i>Operationalization of Measurement .....</i>	<i>21</i>
3.2.1 Dependent variable .....	21
3.2.2 Independent variables .....	24
3.3 <i>Statistical Analysis .....</i>	<i>26</i>
<b>4 Results .....</b>	<b>26</b>
4.1 <i>Malawi.....</i>	<i>27</i>
4.1.1 Results.....	30
4.1.2 Robustness test.....	36
4.2 <i>Ethiopia .....</i>	<i>36</i>
4.2.1 Results.....	39
4.2.2 Robustness Test .....	43
4.3 <i>Nigeria.....</i>	<i>43</i>
4.3.1 Results.....	46
4.3.2 Robustness Test .....	50
<b>5 Discussion &amp; Conclusion .....</b>	<b>52</b>
5.1 <i>Discussion .....</i>	<i>52</i>

5.2	<i>Limitations.....</i>	55
5.3	<i>Conclusion.....</i>	56
5.4	<i>Policy Implications.....</i>	58
<b>6</b>	<b>References.....</b>	<b>60</b>
	<b>Appendices .....</b>	<b>67</b>
	<i>APPENDIX A - Regions.....</i>	<i>67</i>
	<i>APPENDIX B – Visibility Questionnaires .....</i>	<i>70</i>
	<i>APPENDIX C – Operationalization Visibility Indices.....</i>	<i>72</i>
	<i>APPENDIX D – Independent variables .....</i>	<i>74</i>
	<i>APPENDIX E – Poverty line calculations .....</i>	<i>76</i>
	<i>APPENDIX F - Robustness test .....</i>	<i>77</i>

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Thorstein Veblen (1899) mocked with his concept of *Conspicuous Consumption* the decadent lifestyle of the elite. Through the term Conspicuous Consumption, he seemed to imply that the consumption of luxury products was predominantly intended to display one's wealth and to mimic each other in status hunting. Whereas, Veblen mainly accused the middle class of the 19<sup>th</sup> century of this "wasteful behaviour", contemporary research points out that Conspicuous Consumption is timeless and not limited to only a certain class in society: all kind of income groups, races (Charles, Hurst & Roussanov, 2007; Kaus, 2013) and members of political regimes (Friehe & Mechtel, 2014) appear to be involved in these ostentatious practices.

Much empirical research on this subject has been conducted in the developed world, particularly in the USA (e.g. Charles et al., 2009). However, studies show that even the less developed countries are engaged in Conspicuous Consumption. Belk (1988), for example, states that third world countries are often involved in status seeking consumption, even before food and shelter are completely covered. In general, they tend to spend substantial amounts on entertainment, clothing and festivals (Banjeree & Duflo, 2007).

Though Conspicuous Consumption can be detrimental for economic growth, especially in developing countries. When income is spent relatively more on Conspicuous items, it is spent relatively less on other consumption categories. Spending on visible goods can therefore crowd out investments, such as health care, food or education (Frank, 2000). Evidence shows that Conspicuous Consumption may even influence the likelihood of poverty traps (Moav and Neeman, 2010), especially since the poorest have more incentives to spend more on status consumption and invest less on human capital. Moreover, future consumption (savings) are likely to be jeopardized (Charles et al., 2009). Consequently, Conspicuous Consumption slows down or even obstructs the development process.

Nevertheless, though Conspicuous Consumption seems to have major implications for developing economies, relatively few empirical studies have been conducted on the motives of Conspicuous Consumption in the developing world. Research about emerging India (Jaikumar & Sarim, 2015; Bellet & Sihra, 2005) or about South Africa (Kaus, 2012) belong to the rare collection. However, no empirical research can be found about the poorest and most underdeveloped part of the world (IMF, 2015): Sub-Saharan Africa.

The main purpose of this thesis is to fill the gap in the literature by shedding light on the phenomenon of status consumption in sub-Saharan Africa. To empirically examine this behaviour, household data of Malawi, Ethiopia and Nigeria will be used. Inspired by the work of Heffetz (2007), Charles et al. (2009) and Khamis (2012) a Visibility Index existing of *Clothing, Personal Care* and *Social functions* will be composed for the assessment of Conspicuous spending. The determinants necessary to identify to what extent and in what way Conspicuous Consumption varies across circumstances include socio economic and demographic factors. Since these factors are at both household and context level, multilevel regression analyses will be conducted aimed at answering the following research question:

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*“What is the pattern of Conspicuous Consumption in sub-Saharan Africa?”*

This thesis contributes to the academic literature in three important ways. First, it recognizes that Conspicuous Consumption differs per cultural orientation. Research about Conspicuous Consumption is mainly concentrated on developed countries and most surveys about status consumption are conducted in the Western world. It should be taken into consideration that the perception of status is heavily influenced by culture. Studies show, for example, that in collectivistic societies, the judgement of the social environment is a more important motive for a person's behaviour than in individualistic countries. Conspicuous Consumption is therefore more likely to be displayed by means of alternative products or during other occasions. Bloch, Desai and Rao (2004) pointed out that weddings, for instance have a conspicuous nature; poor households in India spend relatively much on weddings to signal status. The same is observed for dowries (Anderson, 2003). On the contrary, in Ghana, Asante death-ritual activities are used as competitive expressions of social status and family identities (Bosnu & Belk, 2003). By incorporating the cultural perception of status in the analysis, it is possible to get a more accurate measure of Conspicuous Consumption. In this thesis, this is done by adding the product category *Social Functions* to the Visibility Index.

Second, besides improving the measurement of Status good expenditures, this thesis tests conventional theories about Conspicuous Consumption under alternative conditions. Most theories are founded on the circumstances of the developed world. Though, in practice they turn out to work differently in the developing world. For example, assumptions about the influence of education appeared to be different in sub-Saharan Africa than was expected.

Third, this thesis distinguishes itself from other comparable research by offering a more comprehensive view of the determinants of Conspicuous Consumption than is done before. In previous studies, the emphasis is mostly put on the effect of one single factor on status seeking Consumption. The work of Ordabayeva and Chandon (2010) primarily examined the effect of income inequality. Heffetz (2011) focused on income and Childers and Rao (1992) solely studied the influence of peer-based reference groups on consumption decisions. In this thesis, a combination of household and context factors is incorporated in the analysis. More importantly, the interaction between the different determinants is examined. With an all-encompassing approach the true influential determinants of Status Consumption can be identified and more suitable development policies for sub-Saharan Africa can be designed.

The structure of the thesis is organized as follows: In the second chapter, the relevant literature regarding Conspicuous Consumption will be discussed. The relevant literature will accumulate in a theoretical framework and accompanying hypotheses that will guide this thesis. In chapter three, this thesis's research method will be further explored. Decisions with respect to the used data, operationalization of variables and statistical method will be justified in this chapter. Chapter four reviews the results of the multilevel analyses and robustness tests for Malawi, Ethiopia and Nigeria. Chapter five elaborates on and discusses the findings, and the limitations of this research. Finally, the main conclusions and policy recommendations are presented in chapter 6.



In this section, the literature on Conspicuous Consumption will be examined. First, the concept of Conspicuous Consumption in general will be presented. Afterwards, Conspicuous Consumption behavior will be put in the context of sub-Saharan Africa. Next, determinants at both household and context level that may affect Conspicuous Consumption behavior, will be further investigated. And eventually, hypotheses, based on previous literature will be formulated.

### 2.1 CONSPICUOUS CONSUMPTION

The concept of consumption has besides neo-classical utilitarian functions, also social and psychological functions. These social and psychological functions of consumption are especially evident when it comes to luxury goods that seek to imply status to the consumer. Consumers purchase status goods because of several reasons (Madinga, Maziriri & Lose, 2016). Some of these motives are focused on the experience and appreciation of the individual. For example, quality assurance can be a motive for a consumer to prefer expensive goods above cheaper ones. The buyer assumes that high-priced products have a superior condition. A second example can be that status goods are consumed because of its hedonic aspect. Consumers see status consumption as purely an exciting experience. However, alternately the social aspect is the most essential motive for status consumption (Mason, 1981) and can be divided into three sub motives. First, status goods can be used as a mean for acquiring a unique identity. The human's desire for differentiation can be accomplished by rare and exclusive products. The second motive is social conformity. Individuals basically attempt to adhere to the norms and standards of their social group, which obviously also affects their purchasing behaviour. This aspect is related to the third motive: social status. Consumers buy certain goods in the hope to be perceived more favorably in the greater social hierarchy. By conforming to their reference group or even to outrun it, social status can be gained (Mullins, 1999).

The latter three motives, which are concentrated on the social context and social status, are in line with the central thought of Veblen's concept of Conspicuous Consumption (1899). Conspicuous Consumption voices the idea that individuals care about their status and seek to impress others by engaging in status consumption (Moav & Neeman, 2010). Expensive and above all visible goods are used as a tool to signal or enhance status. The ostentatious display of jewellery, luxury cars or designer clothes serves to demonstrate one's pecuniary ability to others (Lichtenberg, 1996).

Two elements within the phenomenon of Conspicuous Consumption are salient and intertwined: the desire for status and the importance of the reference group. Conspicuous Consumption is essentially a form of status competition. A high level of social status is preferred, because it can yield social activities, opportunities and privileges, but also trust, approval and recognition. Recognition is important for human-beings since it is considered the basis for self-esteem and self-respect (Kaus, 2013). Status can here be defined as “the rank of the individual or group in a certain society (Weiss & Ferstman, 1988, p.802)”. This rank depends on commonly agreed-upon criteria such as wealth, education or origin, though always in comparison to the position of its audience. Satisfaction is often determined by the reaction of the social community (Wong, 1997). This brings us to the reference group. People strongly define themselves relative to their reference group. Research of Guillen-Royo (2011) even shows that people's wellbeing seems to depend more on the economic level of others than on their own level of income, consumption or wealth. Consumers take into account personal expenditure on items in comparison to the expenditure behaviour of others (Duesenberry, 1949). As a result, individuals aim to have at least as much consumption as their reference group.

As seen above, the individual communicates its aspired status position by observable spending on Conspicuous goods, regardless of the individual's objective income or social class, and making sure this is seen by the relevant reference group. This implies that the signalled wealth does not necessarily correspond with actual wealth (Eastman et al. 1999). People try to manipulate their position in society by fooling the eye of the beholder (Moav & Neeman, 2010). An individual's expenditure on conspicuous goods can therefore be in disproportion regarding his/her actual wealth. Strikingly examples of Conspicuous Consumption in Sri Lanka are the purchase of an unusable television set or the construction of a garage onto a house of whom cannot afford an automobile (Gell, 1986).

## 2.2 CONSPICUOUS CONSUMPTION AND SUB-SAHARAN AFRICA

Although Conspicuous Consumption is a universal phenomenon, motives behind it may differ per cultural orientation (Redding, 1990; Wong & Ahuvia, 1998). Whereas consumers belonging to individualistic cultures focus on their actual self-concept (how the consumer regards him/herself), consumers from a collectivist culture pay more attention to others self-concept (the way others regard him/her) as they wish to signal ostentatious behavior via status consumption. Poor societies, such as the sub-Saharan countries, which are generally

collectivistic, value the opinion of their surroundings more than less-collectivistic<sup>1</sup> countries. If they do not satisfy the duties appointed to them by their place within society, they will be punished by a loss of status, rank and respect. Decisions within the household are largely determined on how one's family will be perceived by the society (Bloch et al., 2004). Families, therefore, devote a great deal of effort and expenses to the presentation of external attributes.

This community-centered behavior is not only limited to acquiring status alone but also has the function of creating an identity (Bloch et al., 2004), social mobility (Srinivas, 1989) and even ensuring survival (Rao, 1999). In sub-Saharan Africa, a person is not defined by solely its own achievements or attitude, but also by the reputation of his/her acquaintances and friends. Hence, a person's identity is in practice equal to his/her network. In order to safeguard a high degree of social mobility, maintaining a good reputation helps families to gain access to certain networks and information, which in turn benefits these families by simply moving up the social ladder. A household with better connections may be able to get hold on better jobs. Moreover, respect and regard are also central elements in impoverished communities and are used as poverty alleviation strategies. Knowing the right people and being in good graces can in some situations mean the difference between life and dead.

Since households put much emphasis on the outsider's notion, it is not surprising that public events are important and seen as the ultimate opportunity to justify or even improve their social status. Status and rank require constant maintenance and public demonstration (Goffman, 1995). For that reason, Conspicuous Consumption mainly takes place during social celebrations. This practice is perfectly illustrated by Rao (2001, p.89) who states that "celebrations, which are a time of intense public scrutiny, become arenas where reputations, are managed and enhanced. Likewise, life cycle events become theaters where public reputations are maintained, and stadiums where people compete in games of status competition, going beyond their role as milestones".

It is therefore common in poor and collectivistic societies that cultural determined preferences and constraints interact with economic motives to provide incentives for spending large sums of money on public celebrations (Rao, 2001). It may seem paradoxical that households which earn barely enough to survive, contribute a vast amount of wealth on festivities that could lead to severe chronic indebtedness (Rao, 2001). The money spent on

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<sup>1</sup> According to the Hofstede (n.d.) Dimensions, Malawi, Ethiopia and Nigeria score 30, 20 and 30 respectively on Individualism. The USA score 91. Source: <https://geert-hofstede.com>

weddings, funerals and other ceremonies can be regarded as wasteful by the outsider, especially because of the high opportunity costs. (Bloch et al., 2004) However, for sub-Saharan Africa communities, Conspicuous Consumption in honor of social festivities is a serious investment in their social reputation and in the networks essential for coping with poverty. As can be seen, Conspicuous Consumption goes hand in hand with cultural perceptions regarding status.

## 2.3 CONSPICUOUS CONSUMPTION AND HOUSEHOLD FACTORS

As household factors, the influence of the household income and the characteristics of the household head on Conspicuous Consumption are analysed. The household head is assumed to be the main decision maker of the family and to be the one who is responsible for the allocation of the household income. The traits of the family head are therefore likely to affect involvement in Conspicuous Consumption. Gender, age and education are considered the most influential features of the household head.

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### 2.3.1 INCOME

Conspicuous Consumption occurs across all social classes (Eastman, Goldsmith & Flynn, 1999). However, there are some differences between income classes. Income can be treated as a resource as well as a position in the society. The first especially applies if a distinction is made between those living under the subsistence level and those above. People under the subsistence level need to devote their total income to basic needs only to be able to survive. The ones above the subsistence level have more resources at their disposal to allocate otherwise. In sub-Saharan Africa, being poor implies that the household's income is directly dedicated to survival. It would therefore be reasonable to assume that households in poverty simply do not have the money to spend on expensive status goods.

**Hypothesis 1:** Households in poverty spend relatively less (or nothing) on Conspicuous Consumption than households who live not in poverty.

When absolute income is above the subsistence level, the positional function of income may play a role. The vast majority of theories and empirical findings on income claim that disadvantaged groups spend significantly more on visible consumption than higher income groups. In these theories, the motive of status compensation dominates: The purchase of material status goods by low income families to serve as a rectification for their low occupational status.

It is assumed that people tend to make upward comparisons: each class envies and emulates the class next above it in the social scale, while it rarely compares with those below (Kapeller & Schütz, 2015). People in deprived positions, such as lower-income groups, experience therefore threats in their status honour. Because of these threats they will encounter a more critical need to make status claim than those in favoured positions (Pellerin and Stearns, 2001). Moav and Neeman (2012) built a theoretical model explaining the incentives of the poorest to spend more on status consumption and invest less in human capital. The authors assume that people with a lower income spend relatively more on Conspicuous goods as an answer to their feelings of relative deprivation. Kaus (2013) supports this argument by stating that individuals from lower income groups aspire the living standard of higher income group and, driving up the demand for the relevant goods. Furthermore, the experiment of Kempen (2004) demonstrates that low income groups in Bolivia are willing to spend higher amounts on conspicuous goods at the expense of other essentials. These disadvantaged groups are, for example, inclined to pay a premium for designer labels to gain social identity through differentiation from, or integration with, other members of society.

Next to that, literature provides several reasons for why the rich are less incentivized to engage in Conspicuous Consumption than the less fortunate. Most straightforward, the rich on average already enjoy a high level of social status and therefore do not have to manipulate their status level with Conspicuous goods. Second, the marginal return on signaling through Conspicuous Consumption decreases when income rises (Moav, 2010). Briefly said, the rich need to consume so much, that the benefits will not be in proportion with the (opportunity) costs. Therefore, also the third reason applies: investing in savings yields more than what can be gained from Conspicuous Consumption.

In line with this reasoning, it can be assumed that the relation between income and Conspicuous Consumption is negative. The income groups above the poverty threshold are more likely to allocate their wealth to the consumption of status goods, while the richer households are less motivated to invest in status goods.

**Hypothesis 2:** The household's level of income is negatively correlated with the household's relative Conspicuous Consumption.

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### 2.3.2 GENDER

Dependent on the gender of the household head, different choices are likely to be made regarding consumption. Research is clear on the spending behaviours on Conspicuous goods. Especially based on evolutionary economics, it turns out that males are far more often involved in Conspicuous Consumption than females (Moav & Neeman, 2009). Females tend to worry less about their social status than males. For men, Conspicuous goods serve as a mean by which they can communicate their social status to a potential mate (Saad & Vongas, 2009). On a more biological level, the testosterone level of men increases when they spend a high amount of money on luxury goods.

However, not only men are involved in Conspicuous Consumption as indicated by five experiments conducted by Wang and Griskevicius (2013). Their research suggest that females are involved in the action as well. Females acquire luxury goods to guard their mate against the poaching of romantic competitors. Whereas men use the conspicuous goods to attract partners, women use them to repel their rivals. The idea behind this signalling game is that with showing off their expensive items the females demonstrate how devoted their partners are to them. Hence, they want to manifest their opponent that they have no chance.

Nevertheless, in this analysis, attention will only be paid to the household head. In sub-Saharan, in most cases this role will be carried out by a male. In the rare cases that a female represents the household head, the man has usually past away. Hence, there is no partner the female should guard, which implies that the assumption that females allocate a larger part of their income on luxury goods, is not relevant. Based on this argumentation, it can be assumed that male household heads spend more on Conspicuous goods than their female counterparts.

**Hypothesis 3:** Male headed households spend relatively more on Conspicuous Consumption than female headed households.

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### 2.3.3 EDUCATION

Education influences the decision-making process and thus indirectly affects the spending pattern of households. However, literature focuses more on the status signaling effect of education. Those with a higher educational level have an observable ability, displayed by professional titles, degree certificates and diplomas. The research of Jaikamur and Sarin (2015) indicates that Conspicuous goods can serve as a substitute for educational qualifications and professional titles. This gives the (higher) educated relatively little need to signal success, while

those without education and thus without certified accomplishment have a stronger motivation to impress other by means of Conspicuous Consumption.

**Hypothesis 4:** The household head's level of education is negatively correlated with the household's relative Conspicuous Consumption.

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#### 2.3.4 AGE

Though age has a dominant effect on consuming behaviour, few literature is devoted to the relation between consumer's age and Conspicuous Consumption. The rare studies available focus mostly on the consumption characteristics of generational cohorts and are written from a Western perspective (Eastman & Liu, 2012). Literature suggests that especially younger consumers are sensitive for status brands (O'Cass & Frost, 2002) and are willing to spend more on luxury-brand items (Phau & Cheong, 2009). The authors attribute this mainly to fact that companies mostly target the market of young adults by branding. Especially fashion brands attempt to position their products in the younger segment. Although the fashion brand market in sub-Saharan is not as fully developed as in the First World, globalisation slowly facilitates the diffusion of well-known brands.

Besides the reasoning from a marketing angle, motivations for status consumption could offer insights. Literature shows that status consumption is aimed at the process of gaining status and social prestige (O'Cass & Frost, 2002). Since gaining status and social prestige can be seen as a process, it could be assumed that younger people are at the start of this status seeking process. This group therefore should do more to validate oneself and build up a reputation. Hence, younger people are more likely to consume more status goods. The elderly already acquired a certain level of status throughout the years. Besides, it is argued by Sherman, Schiffman & Anil (2001) that adults are more self-confident and consequently less inclined to signal status by consumption. It can therefore be expected that younger adults have a high tendency to consume status goods but that through the years this tendency declines.

**Hypothesis 5:** The household head's age is negatively correlated with the household's relative Conspicuous Consumption.

## 2.4 CONSPICUOUS CONSUMPTION AND CONTEXT FACTORS

The context factors include the conditions of the socio-economic and demographic environment of sub-Saharan African countries. The context-specific elements encompass the average income level, the mode of income distribution, the average educational level of the household's cluster, and urbanization.

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### 2.4.1 AVERAGE INCOME LEVEL

Besides to the absolute income level, the relative income level is a major determinant for status compensatory consumption. As already mentioned, people tend to compare themselves with others to assess their own well-being. Clark (1996) states for example that the subjective well-being of the poor in rich countries is lower than those in poor countries. Luttmer (2005) reconfirms the importance of local comparisons by indicating a negative association between individual happiness measures and average neighborhood income. Thus, individuals review their own economic standing in the light of their reference group (Kapeller & Schütz, 2015).

Duesenberry's (1949) demonstration effect argues that individuals tend to compare themselves especially with those whose incomes are higher than their own. This unfavorable upward comparison leads to a desire for higher social status and is an important driving force behind ostentatious consumption. People pursue to emulate the consumption of their social environment: Consumers try "to keep up with the Joneses" (Christen and Morgan, 2005). Or in the case of sub-Saharan Africa, the Azikiwes<sup>2</sup>. Empirical studies (Kaus, 2013) found that the reference group's mean income accounts for differences in visible expenditure. Conspicuous Consumption can therefore be regarded as reference dependent consumption. The consumer's reference group is mostly close in terms of proximity and can include neighbours or the local community.

Because of the comparative influence of the average income level, it can be hypothesized that individuals who live in clusters with a high mean income tend to consume more conspicuous goods to mirror the reference group. When the reference group is less

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<sup>2</sup> Azikiwe is the most common Africa surname. Source: <http://africa-facts.org/african-last-names/>



affluent, meaning the average income level is lower, the household's aspiration to consume Conspicuous goods is automatically less.

**Hypothesis 6:** The average income level is positively correlated with the household's relative Conspicuous Consumption.

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#### 2.4.2 INCOME DISTRIBUTION

Besides, the individual's income and the income of the reference group, the entire shape of the income distribution within that reference group affects one's perception of its place in the status hierarchy. When inequality is high, this means that income/wealth is not evenly spread and that more people are at the extreme ends. Meanwhile, low inequality implies a more egalitarian allocation of income/wealth. With respect to status, the distribution would imply that in an equal society everyone enjoys the same amount of status (holding other influential factors constant). On the contrary this would imply that in a society with high inequality some people luxuriate more status than many others. The higher the inequality and thus the income gap, the larger the status gap and the more conspicuous goods will be consumed to offset the divergence. It could therefore be assumed that households which live in an area that is unequally distributed are more triggered to spend more on Conspicuous goods.

**Hypothesis 7:** The level of inequality is positively correlated with the household's relative Conspicuous Consumption.

Nevertheless, most theories do not solely look at the effect of income distribution in general, but relate the effect to income groups. If status is defined by the ranking in the income distribution, the effect of income distribution becomes more interesting when the household's economic position is regarded. Low income groups seem to dominate, because people mainly make upward comparisons (Wood, 1989). The argument goes that consumers at the bottom of the distribution spend a larger share of their budget on status consumption in order to reduce the discontent they feel with their current level of belongings (Dupor and Liu, 2003; Frank 1985). Also, Christen and Morgan (2005) demonstrate with empirical findings that when the income gap widens, households (especially the lower income groups) become increasingly dissatisfied with their material possessions in comparison to those at the higher end. Kappeler and Schütz (2015) point out in their research that higher income inequality does not automatically lead to higher consumption inequality. The authors imply that people hold on to their current

consumption level or even increase their consumption level to remain their original status position. The empirical study on households in India of Jaikumar & Sarin (2015) stems with this conclusion and shows that when inequality increases, conspicuous consumption increases as well.

However not all researchers agree with the previous statement. Jin Li and Wu (2011) discovered a negative relation between rising inequality in China and the household consumption rate even after they controlled for household income. Jin et al. (2011) argue that when inequality within a society increases, poor families try to accumulate wealth by increasing savings in order to ascend in the status hierarchy. Whereas in some literature it is claimed that rising income inequality stimulates status-seeking consumption, this article claims that it mainly stimulates status seeking savings.

It should be noted however that saving is not completely applicable to sub-Saharan Africa because of its underdeveloped saving facilities. It is therefore more plausible to expect that high inequality is related to higher Conspicuous Consumption for lower income groups.

**Hypothesis 8:** The level of inequality is positively correlated with the household's relative Conspicuous Consumption, with a negative moderating effect of income.

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#### 2.4.3 AVERAGE EDUCATION LEVEL

As already mentioned before, educational achievements and titles signal a certain level of status. Similar to income, the compensatory consumption hypothesis (Caplovitz, 1967) suggests that those with a low educational level would be the most triggered consumers of goods that express their owners' aspirations for status in an attempt to compensate the lack of status that goes with limited educational accomplishments. Since upward comparisons also apply to education, households which are situated in social environments that on average are higher educated, might envy the status of its reference group and attempt to mimic it by means of other status goods.

**Hypothesis 9:** The average education level is positively correlated with the household's relative Conspicuous Consumption.

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#### 2.4.4 URBANIZATION

The social environment is of great importance for determining consumption choices. Since urban and rural areas differ in nature and degree of social interaction, it is relevant to take

social factors shaping these consumption choices into consideration. Unfortunately, there is little literature to be found about the relation between urbanization and Conspicuous Consumption. Though Veblen (1899) argued that Conspicuous Consumption becomes more relevant when social cohesion decreases. This could imply that individuals in areas with a low level of social cohesion (assuming that this is the case for urban areas) are more in need for visible goods to show their status to outsiders. This would not work in areas with a higher level of social cohesion where people are more aware of each other's actual rank. Thus, in rural areas there would be no added value for Conspicuous Consumption, while in urban areas the investment in status goods would pay off.

**Hypothesis 10:** Households in urban areas spend relatively more on Conspicuous goods than households in rural areas.

The urbanization of a household may also have an influence on how it experiences the income level of the reference group. Since social cohesion is lower in urban areas, it is also more difficult to observe the average level of income. Relative income concerns are stronger in rural areas than in urban areas, because social interaction is more common in rural areas. Individuals in rural areas may suffer more from their low economic standing compared those in the urban areas if they would compare their income with groups higher up the income ladder.

**Hypothesis 11:** The average income level is positively correlated with the household's relative Conspicuous Consumption, with a negative moderating effect for households in urban areas.

The same idea applies perhaps even more for income distribution. It is difficult for an individual to get a clear overview of the income distribution in an area where social interaction is low. In a rural area, an unequal distribution of income is more visible than in an urban area.

**Hypothesis 12:** The level of inequality is positively correlated with the household's relative Conspicuous Consumption, with a negative moderating effect for households in urban areas.

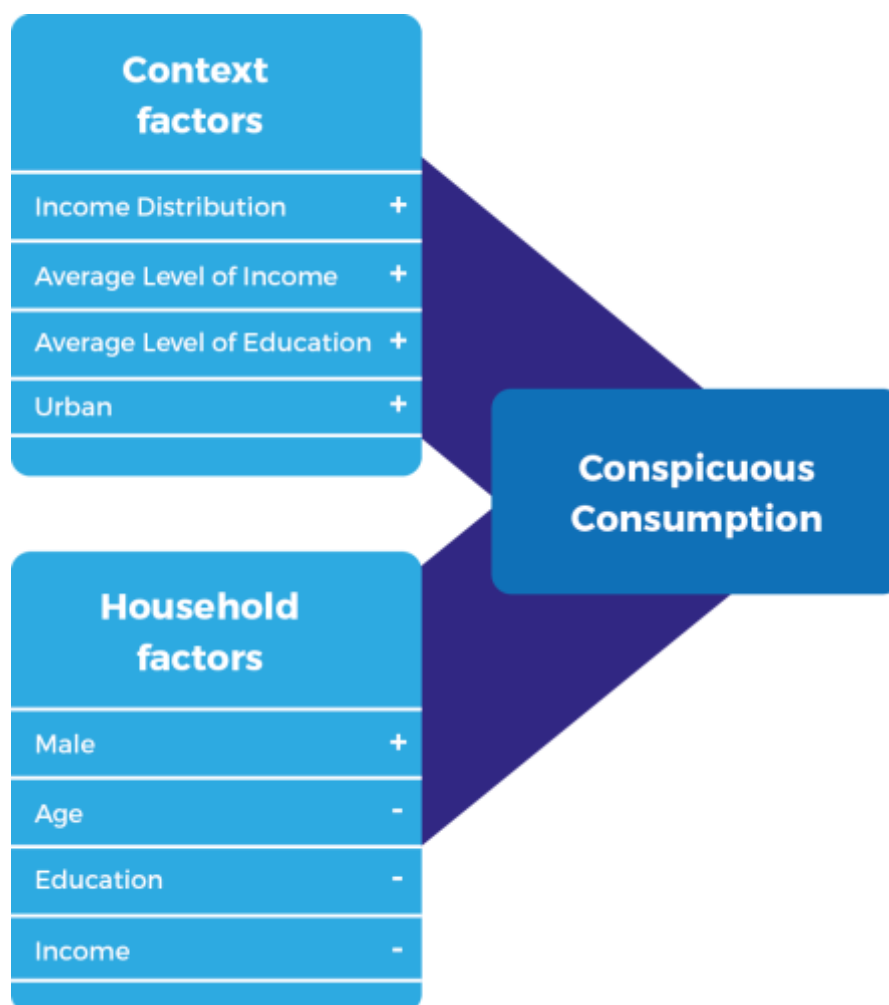


Figure 1 Conceptual model

### 3 METHODS

#### 3.1 DATA

The data sample of this research includes household data from the sub-Saharan African countries Malawi, Ethiopia and Nigeria. The combination of these three countries has deliberately been chosen for this research because they all belong to the nations with low human development, but differ in terms of economic development (Human Development Reports [HDR], 2015).

The micro data is retrieved from National Household Surveys of the concerned countries. The data and questionnaires are provided by the Living Standards Measurement Study-Integrated Survey of Agriculture (LSMS-ISA) project of the World Bank. This program aims to map changing conditions and to foster evidence-based policy formulation. The General

Household Survey of Nigeria is carried out by the National Bureau of Statistics. The Ethiopian Rural Socioeconomic Survey is implemented by the Central Statistics Agency and in Malawi the National Household Survey is performed by the Government of Malawi through the National Statistical Office. The surveys provide detailed information about demographics, education, health, labour, consumption and different sources of household income.

The data collection of Malawi and Nigeria is designed to cover a representative sample at the national level as well at the zonal (urban and rural) level. The data sample of Ethiopia is only representative for the rural and small town areas. This is achieved by using a stratified two-stage sample design. In the first stage, the Enumeration Areas (EA's), clusters, based on probability proportional to size, were selected. The second stage involved the systematic selection of a fixed number of households from these EA's<sup>3</sup>. An overview of the regions and their respective number of selected EA's and households can be found in APPENDIX A.

## 3.2 OPERATIONALIZATION OF MEASUREMENT

### 3.2.1 DEPENDENT VARIABLE

The dependent variable used in the empirical analysis is the *Conspicuous Consumption Ratio*. Conspicuous goods are considered goods that are easily observable by or visible for an average individual and would convey information on wealth given the amount consumed (Bellet & Sihra, 2015). Observability implies that the item is highly portable as that it can be observed across a variety of interactions. The more visible a good is, the more conspicuousness potential it has. Moreover, the goods must signal that individuals who consume more of such goods, are believed to be in better economic circumstances relative to individuals who consume less of those goods (Charles et al., 2009).

Hence, to identify what items possess these characteristics, Heffetz (2007), Charles et al. (2009) and Khamis (2012) conducted surveys to assess people's perceptions on the visibility of consumer products. The former two surveyed respondents in the USA and the latter one in India. The surveys contain questions about the visibility of certain product groups and

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<sup>3</sup> More information about the stratified two-stage sample method can be found at:

<http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1233781970982/5800988-1271185595871/IHS3.BID.FINAL.pdf>,

<http://microdata.worldbank.org/index.php/catalog/1002/study-description#page=sampling&tab=study-desc> and

<http://microdata.worldbank.org/index.php/catalog/2053/study-description#page=sampling&tab=study-desc>.

concerning the relation between a person's income and spending on certain items. The exact questions of the three questionnaires can be seen in APPENDIX B.

Unfortunately, this sort of surveys lacks for sub-Saharan African countries. The content of our Conspicuous Consumption index is therefore largely based on the product categories of the already existing Visibility Indices; in all three Visibility Indices, *Clothing* and *Jewellery* come forward. A great number of literature shows that these consumption goods are a universal symbol of wealth and status (Piron, 2000; Chandon, Wasink & Laurent, 2000; Wattanasuwan, 2005). Through jewels and clothing individuals tempt to express their personal identities associated with social class (Coskunder & Sandikci, 2004). Intuitively, *Personal Care* is added, since it includes products focussed on external care. More interestingly is the category *Entertainment* and *Recreation* goods. The survey of Khamis (2011), shows that individuals regard persons, who consume products such as club fees or musical equipment, as wealthy and high-positioned on the social status ladder. After all, spending money on these items suggests that the individual possesses leisure time. Time that does not have to be devoted to labour or ensuring survival, which is viewed as a privilege. As explained in the theory section, collectivistic societies attach great importance to status signalling during public events. Because of this reason the *Social Functions* category from Khamis' (2012) will be adopted as well. This product category is a collection of spending during ceremonies and donations.

In contrast to the approach of Heffetz (2007) and Charles et al. (2009), *Cars* and *Vehicles* are excluded. Since this research aims primarily on developing countries, it is expected that the possession of cars will be very limited or biased by infrastructural issues. Moreover, *Rent* and *House Rent* are left out of the index for two reasons: the possibility of differential treatment on the housing market (Charles & Hurst, 2002) and the inaccuracy of data. Also, housing-related expenditures such as *Furniture* are not considered, as it is partially reliant on an estimate of rent. Furthermore, *Vacations* and *Personal Goods* will be ignored, since accurate data about these items largely lack in the consumer surveys

The Conspicuous Consumption questionnaire of Charles et al. (2009) and Heffetz (2007) have been based on the CEX, the American Consumer Expenditure Survey. The survey of Khamis (2011) is specifically designed to cover the product categories of the Indian Human Development Survey. Likewise, the National Household Surveys of the sub-Saharan countries differ from one another in structure as well as in indicated product groups. Though, this problem can be tackled by using broadly defined consumption categories to structure expenditures and analyse the pattern of Conspicuous Consumption in sub-Saharan countries. Unfortunately, the surveys do not allow to measure the value of expenditure on *Jewellery* and

*Recreation/Entertainment*. Hence, there will be one Visibility Index for Conspicuous Consumption consisting of *clothing, personal care, social functions*. The exact elaborated operationalization of the Visibility Index is shown in APPENDIX C.

The Conspicuous Consumption measure will eventually exist of the annual aggregate measure of visibility: The sum of the expenses on Conspicuous items in terms of the national currency. However, to compute the annual Conspicuous Consumption aggregate, some adjustments had to be made. The National Household Surveys happen to measure consumption over several time periods. Whereas for *clothing* the expenditure of the last quarter is measured, for *personal care* only the expenditure of the last month is measured. On the contrary, expenditure on *social functions* is measured for the whole year.

Hence, to convert this data into annual figures, some non-optimal decisions based on strong assumptions had to be made. This leads to two distinct methods for dealing with the data transformation. Method I: all non-annual figures are transposed into annual figures, by using the available figures as average household expenditure per month or quarter. This proceeding assumes that every month or every three months the same amount is spent on that particular product category by the household<sup>4</sup>. Method I can thus imply an overestimation or underestimation of the respondents' Conspicuous Consumption. Moreover, it would also imply that all households which have not spent anything in that specific month or quarter are regarded as "non-spenders" for the whole year. To deal with this bias, Method II is introduced. Method II omits all households which had zero expenditure on ONE of the Conspicuous good categories during the measured month or quarter. The residual households are converted into annual figures with the help of the average expenditure procedure of method I.

Summarizing, due to Method I, an overestimation or underestimation of the Conspicuous Consumption behavior, and particularly an underestimation of the non-expenditure respondents may arise in the analysis. Method II deals with these non-expenditure respondents, but risks due to the removal of this group, a selective omission of lower income households. Both methods are not optimal, but are the most feasible for this case. In order to give the most inclusive overview possible, the outcomes of both methods will be shown.

As this research especially focuses on how expenditure on Conspicuous items relates to the total household budget and an absolute measure offers little explanatory power, the

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<sup>4</sup> This assumption can be criticized, because of several reasons: 1) a household does not always have the same budget and 2) the allocation of their budget depends on all kind of factors, for instance festivities, unforeseen expenses, a new household member and so on.

Conspicuous Consumption will be converted into a proportion of the total annual household expenditure. The total annual household expenditure exists of both food and non-food expenses. Thus, Conspicuous Consumption expenditure will be displayed as a Conspicuous Consumption Ratio (CCR).

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### 3.2.2 INDEPENDENT VARIABLES

To discover the pattern of Conspicuous Consumption in Sub-Saharan Africa, socio-economic and demographic factors at both the context and household level are included in the analysis. The independent variables are displayed in APPENDIX D. Depending on the data available, the factors may slightly differ per country. Context factors include inequality, the average level of education, the average level of income and urbanization. The household factors exist of the household income, poverty, the household size, and the age, gender and educational level of the household head.

The first factor at a household level is the annual income of the household. Since, data on household income in the sub-Saharan countries is unreliable<sup>5</sup>, the LOG of the total annual aggregate household expenditure household will be used as a proxy for a household's permanent income. The LOG is used to overcome the problem of skewness in income. The aggregate expenditures are measured in the national currency of the countries; for Malawi this is the Malawian Kwacha (MWK), for Ethiopia, the Ethiopian Birr (ETB) and for Nigeria, the Nigeria Naira (NGN)<sup>6</sup>. For convenience, the expenditure amounts are measured in thousands (Ethiopia) and ten thousands (Malawi and Nigeria). Additionally, income is measured in household quintile dummies, indicating to which income group a household belongs. Quintiles are calculated by dividing the household sample into five equal sized subgroups. The first quintile represents the lowest income group (1-20%), while the fifth represents the highest income group (91-100%). The dummy for the fifth quintile functions as the reference category. The variable of poverty is included as an addition to the Log household expenditure. The dummy variable determines whether the household income per capita falls below the poverty

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<sup>5</sup> In developing countries, formal employment is less common, many households have multiple and changing sources of income, and home production is more widespread. Moreover, income is only received intermittently, whereas expenditure is smoothed over time. It is therefore generally far easier to measure consumption than income Source:

[http://siteresources.worldbank.org/INTPAH/Resources/Publications/Quantitative-Techniques/health\\_eq\\_tn04.pdf](http://siteresources.worldbank.org/INTPAH/Resources/Publications/Quantitative-Techniques/health_eq_tn04.pdf).

<sup>6</sup> 1 USD is 367,407 NGN; 1 USD is 729,543 MWK; 1 USD is 23,3470 ETB. Source: <http://www.xe.com/currencyconverter/convert>



line or above. Households are classified as being either *poor* (0) or *not poor* (1). The national poverty line is based on the global poverty line of 2011 which is \$1,25 per day per capita (2011 PPP) (World Bank, n.d). Calculations are included in APPENDIX E.

Moreover, the education, gender and age of the household head are adopted. Education is measured as the highest level of education attained by the household head. The education categories adopted in the national household surveys are extremely specified, and are therefore, transformed to more standard educational dummy categories: *None* (1), *Primary* (2), *Secondary* (3), *Non-University* (4), and *University* (5). Here, *University* functions as reference category. The specific content of the education categories can be found in APPENDIX D. For the gender of the household head, a dummy variable is added: *Female* (0) and *Male* (1). The age of the household head is measured in years and recoded in four age category dummies: *Up to 25* (1), *26-50* (2), *51-75*(3) and *Above 76* (4). Here, above 76 is also the reference category. Additionally, the effect of household size on the consumption pattern is assessed, which at the same time functions as a control variable. The household size is measured by the number of household members.

The context factors include information about the (EA's) cluster level, which usually represent communities, villages or city districts. These clusters are believed to provide socially proximal referents, who operate directly in the social network of the household and may influence the consumption behavior of the household through social interaction (Childers & Rao, 1992). The variable urbanization indicates whether the household is situated in an urban or rural area. For Malawi and Nigeria this is presented as a dummy variable: *Rural* (0) and *Urban* (1) and in Ethiopia, the dummy variable includes *Rural* (0) and *Small Town* (1). Inequality is measured by using the Gini coefficient of Income Inequality per cluster, which ranges from 0 (perfect equality) to 1 (perfect inequality). The Gini measure will be based on the distribution of household expenditure in the population. In this research, the Gini coefficient is calculated by a GINI formula based on the work of Handcock & Morris (1999), The computations are conducted with the help of the corresponding distribution package in statistic program R<sup>7</sup>. As a robustness test for inequality, the Coefficient of Variation will be conducted as well. Likewise, more equal income distributions have a smaller Coefficient of Variation<sup>8</sup>. The average income

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<sup>7</sup> The package can be found at: <https://www.rdocumentation.org/packages/reldist/versions/1.6-6/topics/gini>

<sup>8</sup> In contract to the GINI coefficient, the Coefficient of Variation can be larger than one.

level is measured by the mean of the household expenditure per cluster. For the average educational level, the same procedure is applied.

### 3.3 STATISTICAL ANALYSIS

Population surveys are in general carried out in such way that the sample design typically mirrors the population structure in terms of geography and household membership (Goldstein, 2011). The sampling unit will often represent a well-defined geographical unit. In the datasets used for the analyses, the households are nested in enumeration areas (EAs), which are small clusters within larger regions. This leads to a 2-level data structure: households are level-1 units nested within cluster areas that are level-2 units. By conducting multilevel regression analyses with random intercepts, these cluster level circumstances and characteristics can be included in the hypothesis testing (Gelman & Hill, 2007). Unfortunately, since the country data files differ to such extent that comparisons between countries are inappropriate, the country level cannot be considered as a “third level”. It is therefore necessary to analyse the countries separately.

Moreover, households can be affected differently by the context. Hence, to assess this variation in the interplay between household factors and context factors, one cross-level interaction effect will be included in the analysis: the combination of inequality and household income. Additionally, two general interaction effects will be included: 1) inequality and urbanization and 2) the average income level and urbanization. To clarify the interpretation of the interaction effects the predictor variables are centered by the Grand Mean (Raudenbush & Bryk, 2002).

## 4 RESULTS

In this section, the characteristics of data sample 1 and 2 will be presented<sup>9</sup>. This summary will contain a description of the household and context factors. Moreover, the Conspicuous Consumption expenditures will be reviewed, succeeded by an overview of the composition of the Conspicuous Consumption aggregate. Next to that, the results of the multilevel regression analyses for both Method I and II will be demonstrated and discussed. This is followed by an evaluation of the robustness tests. This structure will be applied to Malawi, Ethiopia and Nigeria.

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<sup>9</sup> Data sample 1 and data sample 2 are the corresponding data sets of Method I and Method II.

#### 4.1 MALAWI

Malawi's initial Integrated Household Survey contains a data set of 12.271 households, nested in 768 clusters, which are proportionally spread over 31 regions.

After applying Method I & II for the construction of the annual Conspicuous Consumption aggregate, 12.262 households remained left which consumed items from at least one of the products from the Visibility Index (Method I). The number of households which consumed items from ALL Visibility Index categories is 4020 (Method II). In table 1 the data samples are compared. As expected, the removal of those with no consumption in the measured period, resulted in the omission of a large number of households from the lower income groups (household income quintiles 1&2). Hence, for data sample 2, the higher household income quintiles (4&5) are overrepresented.

QUINTIL	MWK	METHOD I		METHOD I	
		Frequency	Percent	Frequency	Percent
1	<96.000	2454	20	241	5,7
2	96.000-145.000	2454	20	616	14,5
3	145.000- 205.000	2455	20	810	19,1
4	205.000- 322.000	2454	20	1085	25,6
5	322.000>	2454	20	1485	35,0
<b>TOTAL</b>		<b>12.262</b>	<b>100,0</b>	<b>4237</b>	<b>100,0</b>

**Table 1 Representation of Income Groups of Malawi for Method I & II**

As an obvious consequence, the mean income between the data sample 1 and 2 differs with almost 100.000 MWK in the advantage of data sample 2 (table 2). Accordingly, less households live in poverty: 44% versus 28% of the households. Next to that, whereas in data sample 1, 18% of the households live in urban areas, in data sample 2 this is 27% of the households. In both samples, the majority (76 % and 81%) of the households is represented by a male. Concerning education, 70% of the household heads of data sample 1 had no schooling, 10% only Primary, 17% Secondary, and barely 3% enjoyed Tertiary education from which only 1,2 % University. Meanwhile, the household heads of data sample 2 are slightly higher educated than the ones from data sample 1. In both samples, the family heads are predominantly present in the age category "26-50 years". Also, the household size remains constant at a mean of 5 and a median of 4.

	METHOD I		METHOD II	
	Mean	Median	Mean	Median
<b>HOUSEHOLD SIZE</b>	5	4	5	4
<b>ANNUAL HOUSEHOLD EXPENDITURE (MWK)</b>	265.000	171.000	366.000	249.000

		Percentage	Percentage
<b>AGE</b>	Up to 25	21,1	12,5
	26-50	61,1	67,9
	51-75	22,1	18,4
	Above 75	4,6	1,2
<b>EDUCATION</b>	None	70	57,9
	Primary	10,2	12,0
	Secondary	16,7	24,1
	No University	1,8	3,7
	University	1,2	2,3
<b>POVERTY<sup>10</sup></b>	Poor	43,9	27,6
	Not Poor	56,1	72,4
<b>GENDER</b>	Male	75,9	81,1
	Female	24,1	18,9
<b>URBANIZATION</b>	Rural	81,8	73,4
	Urban	18,2	26,6

**Table 2 Data sample characteristics for Malawi**

According to the Gini Index of the World Bank (n.d.), Malawi's national GINI coefficient is 0.46. Within the clusters of Malawi, the Gini coefficient ranges between 0.09 and 0.60.

Looking at regional inequality, Zomba takes the role of the most unequally distributed area and Mangochi the most equally distributed. The cluster with the lowest income has on average an expenditure of 50.000 MWK per year and the cluster with the highest income has on average 3.345.000 MWK per year. In terms of regions, this would mean that Blantyre is on average the richest region and Chikwawa the poorest. The most educated and least educated regions are Blantyre and Dedza respectively.

The statistics show that on average the households of sample 1 spent over 16.900 MWK per year on Conspicuous consumption. This accounts for around 6% of total household expenditure. The minimum amount spent by a household is 20 MWK and the maximum is 1.058.000 MWK per year. As table 3 shows, the lowest income group spent on average 3.674 MWK per year on Conspicuous Consumption, while the highest group spent 46.749 MWK. This accounts for about 5% and 7% of total annual household expenditure respectively. For data sample 2, the numbers are relatively higher. On average households in sample 2 spent over 30.000 MWK on Conspicuous Consumption, which is more than 8 % of their total expenditure.

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<sup>10</sup> The Malawian annual national poverty line is 37.800 MWK per capita.

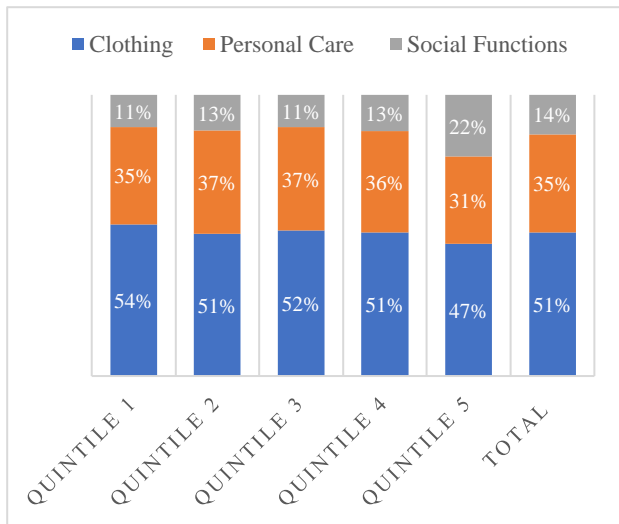
The minimum amount spent on status goods is 930 MWK and the maximum amount is 1.058.000 MWK. The lowest income group spent 7815 MWK on Conspicuous Consumption, while the higher income group spent 57.770MWK. This accounts for 10% of the total expenditure of the lower income groups and for 8% of the middle and higher income groups.

METHOD I		METHOD II		
QUINTIL	Average Conspicuous Consumption (MWK)	Average Conspicuous Consumption Ratio	Average Conspicuous Consumption (MWK)	Average Conspicuous Consumption Ratio
1	3.664	0.051	7.815	0.103
2	6.808	0.057	10.726	0.088
3	9.989	0.058	14.073	0.080
4	16.256	0.063	20.859	0.080
5	46.748	0.068	57.770	0.080
TOTAL	16934	0.060	30.283	0.083

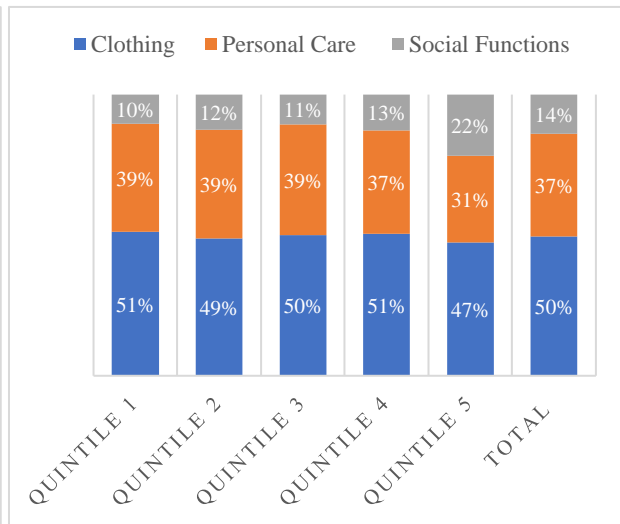
**Table 3 Average absolute and relative expenditure of CC per household quintile for Method I & Method II**

With a focus on the composition of the Conspicuous Consumption Aggregate, it can be observed from graph 1, that on average 51% of the Conspicuous Consumption expenditure is devoted to Clothing. The lowest income quintile is the group that spent relatively more on clothing than the other income quintiles. This group spent 54% of its total Conspicuous Consumption budget on Clothing. 35% of total expenditure on Conspicuous items goes to Personal Care. The wealthiest quintile spent relatively much less on Personal Care items (31%), while the second poorest and the middle-income quintile spent more (37%). The Nigerians allocated roughly 14% of their total spending on Conspicuous Consumption to Social Functions. The wealthiest income group spent relatively more. They assigned 22% to Social Functions.

Between the data samples, there are not many differences. As shown in graph 2, all quintiles spent the most of their total Conspicuous. Consumption budget on Clothing, on average 50%. Though, the first and fourth income quintiles (51%) spent relatively more than the others on this product category. Thereafter, the income quintiles devote on average 37% to Personal Care. The first, second and third incomes quintiles exceed the average, by spending a relatively larger part on personal care (39%). On average, the quintiles spent 14% of their total Conspicuous Consumption on Social Functions. However, the fifth quintile spent a much larger part on Social Function (22%).



**Graph 1 Composition of Conspicuous Consumption in data sample 1 of Malawi**



**Graph 2 Composition of Conspicuous Consumption in data sample 2 of Malawi**

#### 4.1.1 RESULTS

A multilevel regression analysis was used to test the effect of the context and household factors on the Conspicuous Consumption Ratio (CCR). Table 4 displays the estimates of the regressions. In model 1 and 2 the main effects are employed. Whereas, in model 1, *household income quintile* is included as a proxy measure for household income, in model 2, *LOG household total expenditure* and the variable *poor* are used. In model 3 and 4 this combination is repeated, only now with the inclusion of the interaction terms. The total procedure is duplicated for the models 5 to 8 with the data sample of Method II.

Model 1 shows that with respect to the context factors, both *Gini* and the *average level of income* have no significant effect on CCR. The *average level of education* has a positive and statistically significant effect (at a 1% significance level) on CCR. This implies that when the average education level in a cluster is higher, the CCR is likely to be 0.005 points higher as well. Also, *urban* has a positive and statistically significant effect on the CCR, which indicates that households living in an urban area have 0.005 points higher CCR in comparison to living in a rural area. Both test outcomes are in accordance with the hypothesized relational direction. Regarding the household factors, *household size* appears to have no statistically significant effect. Although, only the *first income quintile* is statistically significant ( $p < 0.01$ ) and negatively correlated with the CCR, the household income occurs to influence Conspicuous Consumption. The result suggests that households in the lowest income quintile have a CCR which is 0.006 points lower than the households in the upper income quintile. However, this

finding contrasts with the formulated income hypothesis. All age groups are positively correlated with CCR with a significance level of 1%. Household heads who belong to the age category “51-75 years” tend to have a 0.010 points higher CCR than the reference age category “Above 76 years”. The ones from the age category “25-50 years” have a 0.020 points higher CCR and the age category “Up to 25 years” have a 0.029 points higher CCR. In line with the hypothesis: the younger the household head the higher the CCR. Moreover, the *gender* of the household head is positively and statistically significant ( $p < 0.01$ ), which implies that households represented by a male have a 0.003 points higher CCR than households with a female head and confirms the gender hypothesis. And eventually, with the focus on the education level, a negative and statistically significant effect is indicated for the dummy categories “No education” ( $p < 0.001$ ) and “Primary school” ( $p < 0.01$ ). The estimates suggest that households with a head who enjoyed primary school or no school at all, have a 0.011 and 0.015 points lower CCR than household heads with a University degree. This finding rejects the formulated hypothesis of education.

The estimates of the context factors in model 2 show approximately the same pattern as in model 1. The *average level of income* appears to be negative and statistically significant ( $p < 0.05$ ), suggesting that the higher the household income, the lower the household’s CCR. Moreover, the coefficient of the *average level of education* is also positively and statistically significant. Regarding household factors, the coefficient of *household size* is negative and statistically significant (at a 5% level). This indicates that the higher the number of household members, the lower the CCR. The result of the *Log household expenditure* indicates the same effect as the *household income quintiles* in model 1. The coefficient implies that household with a one-unit higher income level have a CCR that is 0.004 points higher. *Poor* seems to have no statistically significant effect on the CCR. Moreover, both household head’s *age* and *gender* demonstrate the exact same outcomes as for model 1. On the contrary, the dummy category “Primary school” lost its statistically significant effect and the coefficient of the dummy “No education” has become smaller. Though, the estimates still reject the formulated hypothesis.

After the addition of the interaction effects in model 3, the results of the main effects still correspond to those of model 1 and 2. After iteratively testing the interaction effects, only the interaction between *Gini* and the *lowest household quintile* appears to be negative and statistically significant. The not statistically significant interaction effects (*Gini* and *urban*, and *average income level* and *urban*) are omitted from the model. The significant interaction can be interpreted as follows: households in unequally distributed areas have a higher CCR than those in more equally distributed areas but this effect is smaller for the lowest income group. Hence,

this interpretation rejects the specified hypothesis in which was assumed that for the lowest quintile the positive correlation between inequality and CCR would be amplified. Model 4 fails to offer a significant interaction effect. The main effects of the context and household factors of this model stem with those of model 2.

Conducted with the data sample from method II, the estimates of the multilevel regression analyses for model 5 to 8 differ from the estimates of method I (table 5). Note, for example, that the intercepts are larger than the ones from data sample 1. Furthermore, the context factors of models 5 to 8 include no statistically significant effects at all. Concerning household factors, the positive and statistically significant ( $p < 0.001$ ) *household income quintile* dummy estimates suggest that the lower the household quintile, the higher the CCR. This is exactly the opposite effect of what was estimated by data sample 1. However, the outcome of model 5 is in line with the proposed hypothesis: the higher the household income, the lower the CCR. Furthermore, only one dummy variable of *age* remains statistically significant ( $p < 0.05$ ). Though the negative direction of the relation did not change. The estimates of household education are comparable to those of data sample 1 only with a higher significance ( $p < 0.01$ ) for the dummy “*Primary*”. Also, in model 6, the *Log household expenditure* is statistically significant (at a 0.1% level). Albeit, again with the exact opposite direction as estimated by data sample 1. Household head’s *age* and *education* follow the same pattern, while *gender* turns out to have lost its statistical significance.

The estimates of the main effects of Model 7 and 8 are similar to those of model 5 and 6, though with smaller coefficients for *education*. In model 7 and 8, three of the included interaction effects appear significant. In model 7 the interactions between *Gini* and the *lowest* and *second lowest income quintile* are negative and statistically significant at a 1% significance level. The interaction between *Gini* and *urban* is negative and statistically significant at a 5% significance level. The former two interactions can be interpreted as follows: households in unequally distributed areas have a higher CCR compared to those in equally distributed areas but this effect is less for the lowest and second lowest income quintile. This means that those in the lower income quintiles are less influenced by the inequality effect. For the interaction between *Gini* and *urban* applies that households in unequally distributed areas have a higher CCR than those in equally distributed areas but that this effect is weaker in urban areas.

Model 8 entails a positive and statistically significant interaction effect ( $p < 0.01$ ) between *Gini* and *log household expenditure* and a negative statistically significant effect ( $p < 0.05$ ) between *Gini* and *urban*. Households in an unequally distributed region have a higher CCR and even more for the higher household income levels. This is in accordance with the



interaction effect between the *household income quintile* and *Gini* of model 7. The interplay between *Gini* and *urban* has the same interpretation as in model 7: households in unequally distributed areas have a higher CCR compared to those in more equally distributed areas but this effect is less for the households that live in urban areas.

# CONSPICUOUS CONSUMPTION RATIO

Variable	Model 1	Model 2	Model 3	Model 4
<b>Context factor</b>				
<i>Gini</i>	0.117 (0.00)	0.011 (0.01)	0.011(0.01)	0.013 (0.01)
<i>Average level of income</i>	-0.000074 (0.00)	-0.000099*(0.00)	-0.000077(0.00)	-0.000167 (0.00)
<i>Average level of education</i>	0.005**(0.00)	0.006**(0.00)	0.006**(0.00)	0.006**(0.00)
<i>Urban</i>	0.005** (0.00)	0.005**(0.00)	0.005*(0.00)	0.005*(0.00)
<b>Household factor</b>				
<i>Household size</i>	-0.000 (0.00)	-0.001*(0.00)	-0.000 (0.00)	-0.000(0.00)
<i>Income</i>				
Log expenditure		0.004*** (0.00)		0.004*** (0.00)
Poor		0.001 (0.00)		0.001 (0.00)
Household quintile				
1st	-0.006**(0.00)		-0.006**(0.00)	
2nd	-0.002 (0.00)		-0.002 (0.00)	
3rd	-0.003 (0.00)		-0.002 (0.00)	
4th	0.001 (0.00)		0.001 (0.00)	
5th	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>
<i>Age</i>				
Up to 25	0.029*** (0.00)	0.029*** (0.00)	0.029*** (0.00)	0.030*** (0.00)
25-50	0.020*** (0.00)	0.020*** (0.00)	0.020*** (0.00)	0.020*** (0.00)
51-76	0.010** (0.00)	0.010*** (0.00)	0.009*** (0.00)	0.010*** (0.00)
Above 76	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>
<i>Male</i>	0.003** (0.00)	0.003** (0.00)	0.003** (0.00)	0.002** (0.00)
<i>Education</i>				
No education	-0.015*** (0.00)	-0.012** (0.00)	-0.015** (0.00)	-0.011* (0.00)
Primary education	-0.011* (0.00)	-0.008 (0.00)	-0.011* (0.00)	-0.007 (0.00)
Secondary education	-0.006 (0.00)	-0.003 (0.00)	-0.006 (0.00)	-0.003 (0.00)
No university	0.006 (0.00)	0.006 (0.00)	0.006 (0.00)	0.007 (0.00)
University	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>
<b>Interaction effects</b>				
Gini * lowest income quintile			-0.036* (0.00)	
Gini * household expenditure				0.003 (0.01)
<b>Constant</b>	0.043*** (0.00)	0.041*** (0.00)	0.042*** (0.00)	0.041*** (0.00)
<b>Observations</b>	12.262	12.262	12.262	12.262
<b>-2 log likelihood ratio</b>	-39709, 143	-39721, 297	-39701,669	-39717,943

Note: \* <0.05; \*\* p<0.01; \*\*\*p<0.001.

Table 4 Multilevel regression with data sample 1 of Malawi

# CONSPICUOUS CONSUMPTION RATIO

Variable	Model 5	Model 6	Model 7	Model 8
<b>Context factor</b>				
<i>Gini</i>	0.014 (0.01)	0.018 (0.01)	0.022(0.01)	0.025 (0.00)
<i>Average level of income</i>	-0.000(0.00)	-0.000(0.00)	-0.000 (0.00)	-0.000 (0.00)
<i>Average level of income education</i>	0.000 (0.00)	0.002(0.00)	0.005 (0.00)	0.005 (0.00)
<i>Urban</i>	0.005 (0.00)	0.005(0.00)	0.006 (0.00)	0.006 (0.00)
<b>Household factor</b>				
<i>Household size</i>	-0.000 (0.00)	-0.000(0.01)	-0.000 (0.00)	-0.000 (0.00)
<i>Income</i>				
Log expenditure		-0.009*** (0.00)		-0.010*** (0.00)
Poor		0.004 (0.00)		0.002 (0.00)
Household income quintile				
1st	0.030*** (0.00)		0.030*** (0.00)	
2nd	0.018*** (0.00)		0.016*** (0.00)	
3rd	0.009*** (0.00)		0.010*** (0.00)	
4th	0.008*** (0.00)		0.009*** (0.00)	
5th	Reference	Reference	Reference	Reference
<i>Age</i>				
Up to 25	0.016* (0.01)	0.014** (0.01)	0.015* (0.01)	0.015* (0.01)
25-50	0.009 (0.01)	0.007 (0.01)	0.008 (0.01)	0.007 (0.01)
51-76	0.002 (0.01)	0.001 (0.01)	0.002 (0.01)	0.001 (0.01)
Above 76	Reference	Reference	Reference	Reference
<i>Male</i>	0.001 (0.00)	0.000 (0.00)	0.001 (0.00)	0.000 (0.00)
<i>Education</i>				
No education	-0.020*** (0.00)	-0.025*** (0.01)	-0.020*** (0.01)	-0.023*** (0.01)
Primary education	-0.011** (0.00)	-0.021*** (0.01)	-0.016** (0.01)	-0.019** (0.01)
Secondary education	-0.009 (0.00)	-0.014* (0.01)	-0.008 (0.01)	-0.012** (0.01)
No university	0.005 (0.00)	0.002 (0.01)	0.005 (0.01)	0.004 (0.01)
University	Reference	Reference	Reference	Reference
<b>Interaction effects</b>				
Gini * lowest income quintile			-0.099** (0.03)	
Gini * second lowest income quintile			-0.095** (0.03)	
Gini * household expenditure				0.044** (0.02)
Gini * urban			-0.065* (0.03)	-0.076* (0.03)
<b>Constant</b>				
Constant	0.066*** (0.00)	0.076*** (0.01)	0.066*** (0.01)	0.073*** (0.00)
Observations	4020	4020	4020	4020
-2 restricted log likelihood ratio	-13266,746	-13259,019	-13264,209	-13257,534

\* <0.05, \*\* p<0.01, \*\*\*p<0.001

Table 5 Multilevel regression with data sample 2 of Malawi

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#### 4.1.2 ROBUSTNESS TEST

To assess the robustness of the analysis, an additional test is performed. The robustness test incorporates the *Coefficient of Variation* as inequality measure, which ranges in Malawi from 0.16 to 1.87. The results of the robustness check are presented in APPENDIX F. In both models the inequality measure is statistically not significant. Also, the interaction effect between *CV* and *expenditure* is statistically not significant. Though when *CV* is integrated in the interaction effect with the *lowest income quintile* it appears to be statistically significant. The interaction with *CV* and *lowest income quintile* has a lower magnitude (-0.015) and has a higher significance level ( $p < 0.01$ ), compared to the interaction effect between *Gini* and *lowest income quintile*. The replacement of the *GINI* coefficient by the *CV* does not alter the estimates of the other coefficients. The main conclusions that can be drawn from this test is therefore that the results are robust.

#### 4.2 ETHIOPIA

The Ethiopian Rural Socio-Economic survey allowed to compose a Conspicuous Consumption Measure consisting of expenditure on *Clothing*, *Personal Care* and *Social Functions*.

After the construction of the Annual Conspicuous Consumption Aggregate, while following the same procedure as for Malawi, 3808 households remained left for Method I. The number of households that consumed items from ALL Conspicuous goods categories is 2663 (Method II). As shown by table 6, the omission of households, that did spend money on neither of the Conspicuous good categories, creates a less skewed distribution of income groups than for Malawi. Despite, the decrease of households in the lowest income quintile, the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> income quintiles remain around 20%.

Table 7 illustrates that there is a slight increase in the mean and median of the household annual expenditure. Whereas, for Method I, households have a mean of 19.000 ETB and a median of 14.000 ETB, for Method II, this is 21.000 ETB and 17.000 ETB respectively. Therefore, the proportion of households that lives in poverty decreases from 49% to 44%. Concerning household characteristics, only small differences between the data samples can be observed. The mean and median of the household size remained in both cases the same. Moreover, the household head's age is also similar. Only a small increase of household heads in the age category "26-50 years" can be noticed. Regarding, the educational level, family heads in data sample 2 are on average higher educated. Next to that, in both data samples, the household heads are in the majority of the cases male. Only in data sample 2 (78%) somewhat more often than in data sample 1 (75%).

QUINTIL	ETB	METHOD I		METHOD II	
		Frequency	Percent	Frequency	Percent
1	<7.600	763	20	331	12,4
2	7.600 – 12.000	763	20	507	19,0
3	12.000 – 17.000	762	20	566	21,3
4	17.000 - 25.000	761	20	603	22,6
5	25.000 >	759	19,9	656	24,6
TOTAL		3808	100,0	2663	100,0

**Table 6 Income groups in Ethiopia for Method I&II**

With respect to context factors, in data sample 1, 88% of the households lives in rural areas, while in data sample 2 this is 86%. The national Gini of Ethiopia is 0.32 (World Bank, n.d). With the focus on regions, Tigray is the most unequal region of Ethiopia and Gambelia is the most equally distributed region. The regions have a Gini coefficient of 0.32 and 0.24 respectively. The cluster with the highest average income, has 106.000 ETB while the one with the lowest average income has only 4.200 ETB. Translating this into regions would mean that Dire Dawa is the richest region and Amhara is the poorest. The highest educated region is Gambelia and lowest is Somalie.

	METHOD I		METHOD II	
	Mean	Median	Mean	Median
HOUSEHOLD SIZE	5	4	5	4
ANNUAL HOUSEHOLD EXPENDITURE (ETB)	19.000	14.000	21.000	17.000
	Percentage		Percentage	
AGE	Up to 25	9,8	Up to 25	9,5
	26-50	59,3	26-50	62,3
	51-75	27,3	51-75	25,4
	Above 76	3,6	Above 76	2,7
EDUCATION	None	64,4	None	58,8
	Primary	27,4	Primary	31,6
	Secondary	2,4	Secondary	3,0
	No University	3,7	No University	4,1
	University	1,9	University	2,4

<b>POVERTY<sup>11</sup></b>	Poor household	48,8	Poor household	44,4
	Not poor household	51,2	Non-poor household	55,6
<b>GENDER</b>	Male	74,6	Male	78,1
	Female	25,4	Female	21,9
<b>URBANIZATION</b>	Rural	87,6	Rural	86,2
	Small town	12,4	Small town	13,8

**Table 7 Data sample characteristics**

Table 8 demonstrates that the average amount a household spent on Conspicuous Consumption is 2021 ETB, which accounts for over 12 % of total annual household expenditure. For Method II applies 2379 ETB which is 13 % of total expenditure. For Method I, the wealthiest income group spent the most on Status goods in absolute terms (3831 ETB) but the least in relative terms (9,7% of the total household expenditure). The poorest quintile spent the highest fraction of its total expenditure on Conspicuous good (13,3%). Likewise, in data sample 2, the wealthiest quintile spent the most on Conspicuous items in absolute terms (4095 ETB) though the poorest quintile is accountable for the highest relative expenditure on Conspicuous products (16,6% of total household expenditure).

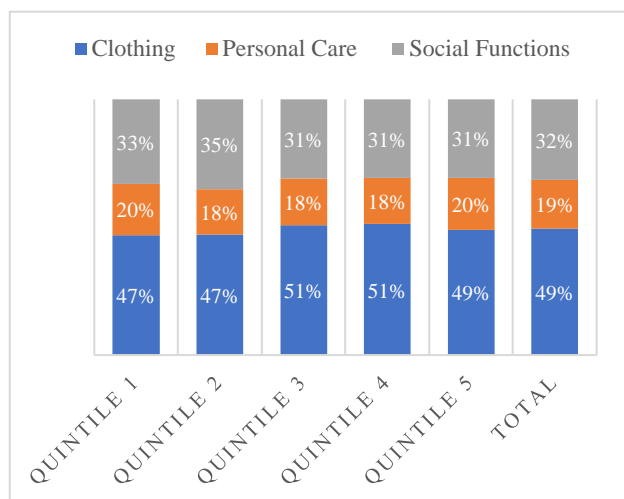
<b>METHOD I</b>			<b>METHOD II</b>	
<b>QUINTIL</b>	Average Conspicuous Consumption (ETB)	Average Conspicuous Consumption Ratio	Average Conspicuous Consumption (ETB)	Average Conspicuous Consumption Ratio
<b>1</b>	697	0.133	892	0.166
<b>2</b>	1375	0.128	1493	0.150
<b>3</b>	1735	0.119	1916	0.131
<b>4</b>	2313	0.110	2547	0.121
<b>5</b>	3831	0.097	4059	0.103
<b>TOTAL</b>	2021	0.120	2379	0.130

**Table 8 Average absolute and relative expenditure of CC per household income quintile for Method I & Method II**

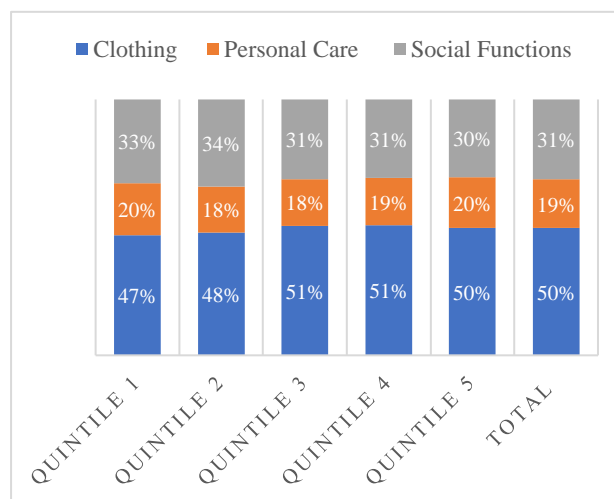
A more in-depth examination of the composition of Conspicuous Consumption entails that in data sample 1, on average 49% of the total Conspicuous Consumption expenditure is allocated to Clothing. It can be observed from graph 3 that with an expenditure on Clothing of 51% (of

<sup>11</sup> The Ethiopia annual national poverty line is 3.239 ETB per capita.

total conspicuous consumption), the third and fourth quintile, exceed the average. 19% of the total Conspicuous Consumption expenditure is spent on Personal Care. The lowest and highest quintile spent slightly more in relative terms (20%). On average 32% of the Conspicuous Consumption budget is devoted to Social Functions. The second poorest quintile contributed relatively more than the average and spent 35% of the total Conspicuous Consumption expenditure on Social Functions. As graph 4 exhibits, the composition of expenditure on Conspicuous Consumption and the differences per income group are nearly identical for data sample 2. On average, only a bit more is spent on Clothing and a bit less on Social Functions.



**Graph 4 Composition of Conspicuous Consumption in data sample 1 of Ethiopia**



**Graph 3 Composition of Conspicuous Consumption in data sample 21 of Ethiopia**

#### 4.2.1 RESULTS

The multilevel regression analyses (tables 9 and 10) of Ethiopia follow the same structure as for Malawi. Models 1 to 4 employ the data sample of Method I and Model 5 to 8 the data sample of Method II. In model 1 *inequality* and *the average educational level* of the cluster show no statistically significant effect. In contrast to the formulated hypothesis, *the average level of income* displays a negative and statistically significant (at a 1% significance level) effect, suggesting that a higher of the *average income level* of 1000 ETB means a 0.001 point lower households *CCR*. The estimate for *Small Town* is statistically significant ( $p < 0.05$ ) and positive. This outcome confirms the expectations that households in small towns have a higher *CCR* than households in the rural area. Despite, the household head's *gender*, all household factors are statistically significant. The positive and statistically significant ( $p < 0.01$ ) coefficient of *household size* suggests that the larger the household, the higher the *CCR*. The *first*, *second* and *third income quintile* dummies are statistically significant at 0.1% significance level. The *fourth*

*income quintile* dummy is statistically significant at 1% level. In accordance with the hypothesis, the signs and magnitudes of the *income quintile* dummies indicate that the poorer the household, the higher the CCR. Furthermore, in line with the expectations, the positive and statistically significant ( $p < 0.01$ ) *age* dummies show that the younger the household head, the higher the CCR. The education dummies ‘None’, ‘Primary’ and ‘Secondary’ are significant at a 0.1% level, while the dummy ‘No University’ is significant at a 5% level. Surprisingly, as opposed to the formulated hypothesis, the negative education dummies suggest that the higher the head’s educational level, the higher the household’s CCR.

In model 2, the *Log household expenditure* and *poor* are added as an alternative measure for income. The additions do not change the statistical significance and direction of the other coefficients. Also, the magnitudes are nearly identical. The positive estimate of the *log household expenditure* is statistically significant ( $p < 0.001$ ) and indicates a correlation which is in accordance with the pattern of the *income quintiles*. A higher household income implies a lower CRR. *Poor* is not statistically significant.

In model 3, several interaction effects are added, including a combination between *Gini* and *urban*, between *average level of income* and *urban* and between the *income quintile* dummies and *Gini*. After testing the interaction effects iteratively, only the interaction with the *lowest quintile* dummy and *Gini* appeared to be significant. The other dummies are for this reason omitted from the model. The significant interaction, which is in line with the hypothesized assumption, can be interpreted as: households in unequally distributed areas have a higher CCR compared to those in more equally distributed areas and this effect is even higher for the poorest quintile. The main effects of model 3 are similar to those of model 1.

In model 4, the interaction effect with *income quintile* dummies are replaced by one interaction effect between *Gini* and *expenditure*. Again, the interactions are iteratively tested and omitted if necessary. Only the interaction between *expenditure* and *Gini* appeared to be statistically significant ( $p < 0.05$ ). The interpretation of the interaction effect is in accord with the *income quintile* interaction effect and the hypothesis, and reads: the more unequally distributed the area is, the higher the household’s CCR, though this effect becomes weaker, the richer the household. The main effects of the household and context factors of 4 are almost identical to those of 2.

Models 5 to 8 (table 10) incorporate the data sample of Method I in the analysis. In contrast, to what happens for Malawi, the differences between the estimates of Method I and Method II for Ethiopia are minimal. The signs are identical, only magnitudes and level of significance may slightly differ. The biggest difference is that the categorical dummy ‘No



*university*’ becomes non-significant in model 5 and 7. Additionally, the *average level of income* becomes statistically insignificant for model 6 and 8.

CONSPICUOUS CONSUMPTION RATIO				
Variable	Model 1	Model 2	Model 3	Model 4
<b>Context factor</b>				
<i>Gini</i>	0.047(0.02)	0.044(0.03)	0.050(0.02)	0.051(0.03)
<i>Average level of income</i>	-0.0009**(0.00)	-0.0008**(0.00)	-0.0009**(0.00)	-0.0009**(0.00)
<i>Average level of education</i>	0.003(0.01)	0.003(0.01)	0.003 (0.01)	0.003 (0.01)
<i>Small town</i>	0.021*(0.01)	0.021*(0.01)	0.020* (0.01)	0.022*(0.01)
<b>Household factor</b>				
<i>Household size</i>	0.003***(0.00)	0.003***(0.00)	0.004***(0.00)	0.003***(0.01)
<i>Income</i>				
Log expenditure		-0.022***(0.00)		-0.014***(0.00)
Poor		0.004(0.00)		0.005*(0.00)
Household quintile				
1st	0.034***(0.01)		0.032***(0.02)	
2nd	0.030***(0.00)		0.029***(0.02)	
3rd	0.020***(0.00)		0.019***(0.02)	
4th	0.013**(0.00)		0.011**(0.01)	
5th	Reference		Reference	
<i>Age</i>				
Up to 25	0.028**(0.01)	0.029***(0.01)	0.028***(0.01)	0.028***(0.01)
25-50	0.023**(0.01)	0.023**(0.01)	0.023**(0.01)	0.022**(0.01)
51-76	0.022**(0.01)	0.022**(0.01)	0.022**(0.01)	0.021**(0.01)
Above 76	Reference	Reference	Reference	Reference
<i>Male</i>	-0.003(0.00)	-0.002(0.00)	-0.003(0.00)	0.002(0.00)
<i>Education</i>				
No education	-0.076***(0.01)	-0.077***(0.01)	-0.076***(0.01)	-0.077***(0.01)
Primary education	-0.069***(0.01)	-0.071***(0.01)	-0.070***(0.01)	-0.071***(0.01)
Secondary education	-0.041***(0.01)	-0.042***(0.01)	-0.043***(0.01)	-0.043***(0.01)
No university	-0.024*(0.01)	-0.025*(0.01)	-0.025*(0.01)	-0.026**(0.01)
University	Reference	Reference	Reference	Reference
<b>Interaction effects</b>				
<i>Gini *lowest quintile</i>			0.038*(0.04)	
<i>Gini * household expenditure</i>				-0.032*(0.01)
<b>Constant</b>	0.124***(0.01)	0.144***(0.01)	0.126***(0.01)	0.145***(0.01)
<b>Observations</b>	3568	3568	3568	3568
<b>-2 restricted log likelihood ratio</b>	-8099	-8132	-8089	-8115

\* <0.05, \*\* p<0.01, \*\*\*p<0.001

**Table 9 Multilevel regression with data sample 1 of Ethiopia**

**CONSPICUOUS CONSUMPTION RATIO**

<b>Variable</b>	<b>Model 5</b>	<b>Model 6</b>	<b>Model 7</b>	<b>Model 8</b>
<b>Context factor</b>				
<i>Gini</i>	0.043(0.02)	0.048(0.02)	0.046(0.03)	0.015(0.02)
<i>Average level of income</i>	-	-0.00048(0.00)	-	-0.00065(0.00)
<i>Average level of education</i>	0.003(0.01)	-0.002(0.01)	0.003(0.01)	-0.002(0.01)
<i>Small town</i>	0.026*(0.01)	0.027*(0.01)	-0.027*(0.01)	-0.029*(0.01)
<b>Household factor</b>				
<b>Household size</b>	0.003**(0.00)	0.003**(0.00)	0.003**(0.00)	0.003**(0.00)
<i>Income</i>				
Log expenditure		-		-
Poor		0.002(0.00)		0.003(0.00)
<i>Household quintile</i>				
1st	0.058***(0.01)		0.054***(0.01)	
2nd	0.044***(0.00)		0.042***(0.00)	
3rd	0.028***(0.00)		0.026***(0.00)	
4th	0.020***(0.00)		0.018***(0.00)	
5th	Reference		Reference	
<i>Household age</i>				
Up to 25	0.026**(0.01)	0.025**(0.01)	0.026*(0.01)	0.024**(0.01)
25-50	0.019*(0.01)	0.018*(0.01)	0.019*(0.01)	0.018*(0.01)
51-76	0.023**(0.01)	0.022**(0.01)	0.023*(0.01)	0.022**(0.01)
Above 76	Reference	Reference	Reference	Reference
<i>Male</i>	-0.003 (0.00)	-0.002(0.00)	-0.002(0.00)	-0.002(0.00)
<i>Education</i>				
No education	-0.072***(0.01)	-	-0.073***(0.01)	-
Primary education	-0.067***(0.01)	-	-0.067***(0.01)	-
Secondary	-0.041**(0.01)	-0.042**(0.01)	-0.043**(0.01)	-
No university	-0.019(0.01)	-0.02*(0.01)	-0.020(0.01)	-0.021*(0.01)
University	Reference	Reference	Reference	Reference
<b>Interaction effects</b>				
<i>Gini * lowest income quintile</i>			0.121*(0.05)	
<i>Gini * household expenditure</i>				-0.032*(0.02)
<b>Constant</b>	0.123***(0.01)	0.152***(0.01)	0.125***(0.01)	0.152***(0.01)
<b>Observations</b>	2663	2663	2663	2663
<b>-2 restricted log likelihood ratio</b>	-6659	-6036	-5976	-6033

\* <0.05, \*\* P<0.01, \*\*\*P<0.001

**Table 10 Multilevel regression with data sample 2 of Ethiopia**

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#### 4.2.2 ROBUSTNESS TEST

The robustness test for inequality is conducted by integrating the *Coefficient of Variation* instead of the *Gini Coefficient* in the analysis. The CV of Ethiopia ranges from 0.19 to 2.35 and has a mean of 0.64. As shown in APPENDIX F, the sign and magnitude of the estimates remain the similar to the main models. Like the *Gini coefficient*, the inequality variable measured by the CV is not statistically significant. The interaction effect between the *lowest quintile* and CV is in both cases statistically significant, with comparable sign and magnitude. However, the interaction effect between *expenditure* and CV is not significant. Though in general, can be concluded that, except for the interaction with expenditure, the results are robust.

#### 4.3 NIGERIA

The General Household Survey of Nigeria contains a dataset of 5000 interviewed households and supports the construction of the Conspicuous Consumption aggregates consisting of the product categories *clothing*, *personal care* and *social functions*.

The calculation of the annual expenditure on Conspicuous Consumption resulted in a data set of 4699 households for Method I and 1664 households for Method II. As table 11 portrays, the removal of households creates an overrepresentation of the highest income groups at the expense of the lower ones. For Method I, the average annual household expenditure is 504.000 NGN, while for Method II, this is 610.00 NGN. The median of the total annual household expenditure for Method I and II are 419.000 NGN and 516.000 NGN respectively. Accordingly, poverty in data sample 2 is slightly lower than in sample 1.

It can be observed from table 12 that the age group “26-50” is largest in both samples. The education figures entail that in data sample 1, most household heads received no education, while in data sample 2, the average highest education level attained by the household heads is Primary Education. Furthermore, in data sample 1, around 85% of the households are male headed. For data sample 2, this is 87% of the households. The average household size is in both samples equal to 5.

With respect to the context factors, the majority of the households is situated in a rural area. For data set 1, this is 68%, for data set 2, this is 62% of the households. The national Gini coefficient of Nigeria is 0.43 (World Bank, n.d.) The district with the highest Gini Coefficient within Nigeria is Cross River (0.54), the lowest is Zamfara (0.08). Sokoto is the richest district is with on average 650.000 NGN per year, the poorest district is Zamfara with 360.000 NGN. Remarkably Sokoto is also the least educated district. FCT Abuja is considered the most educated district.

QUINTIL	NGN	METHOD I		METHOD II	
		Frequency	Percent	Frequency	Percent
1	<240.000	939	20	183	11
2	240.000-348.000	940	20	227	13,6
3	348.000-481.000	940	20	330	19,8
4	481.000-685.000	940	20	420	25,2
5	685.000>	940	20	504	30,3
<b>TOTAL</b>		<b>4699</b>	<b>100</b>	<b>1664</b>	<b>100</b>

**Table 11 Income groups in Nigeria for Method I&II**

	METHOD I		METHOD II	
	Mean	Median	Mean	Median
<b>HOUSEHOLD SIZE</b>	5	5	5	5
<b>ANNUAL HOUSEHOLD EXPENDITURE (NGN)</b>	504.0000	419.000	610.000	516.000
	<b>Percentage</b>		<b>Percentage</b>	
<b>AGE</b>	Up to 25	3,1	Up to 25	2,8
	26-50	55,1	26-50	58,2
	51-75	36,4	51-75	35,6
	Above 76	5,3	Above 76	3,4
<b>EDUCATION</b>	None	31,7	None	25,4
	Primary	26,9	Primary	27,7
	Secondary	21	Secondary	24,4
	No University	11,3	No University	9,9
	University	9,1	University	12,7
<b>POVERTY<sup>12</sup></b>	Poor household	78,3	Poor household	86,3
	Non-poor household	21,7	Non-poor household	13,7
<b>GENDER</b>	Male	85,5	Male	87,3
	Female	14,5	Female	12,7
<b>URBANIZATION</b>	Rural	68	Rural	62,2
	Urban	32	Urban	37,8

**Table 12 Data sample descriptive Nigeria**

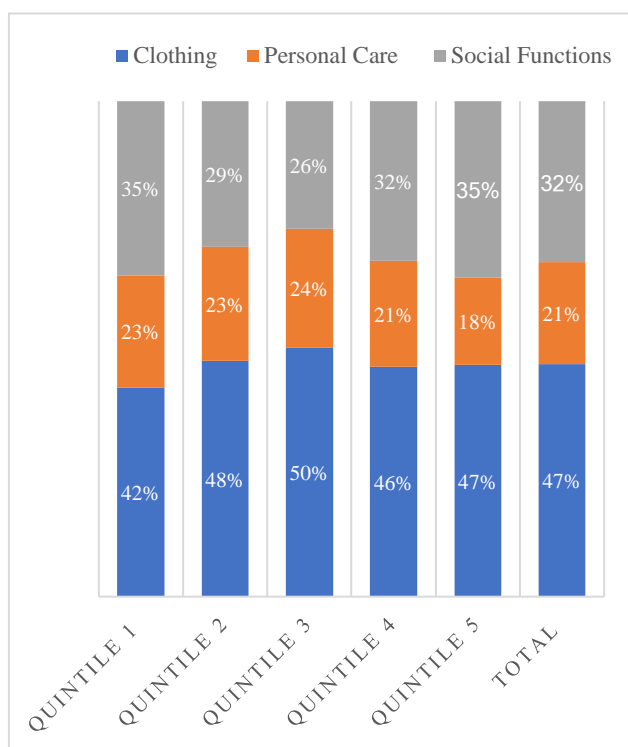
<sup>12</sup> The annual Nigerian poverty line is 55.699 Naira per capita.

As can be seen from table 13, the households of Method I spent on average 29.000 NGN on Conspicuous Consumption items, which accounts for about 5,7% of the total annual household expenditure. The households of Method II exceed this amount and spent on average 48.000 NGN on Conspicuous Consumption products, which is equal to 8,2% of total expenditure. Both the amounts as the portions spent on status goods differ between household income quintiles. Under Method I, the highest income quintile spent most in absolute terms (63.486 NGN), while the lowest income quintile spent most in relative terms (6,3% of total expenditure) on Conspicuous goods. This pattern is in line with Method II. The wealthiest quintile spent on average 84.398 NGN on items that are indicated as Conspicuous. The least wealthy quintile spent 11% of its annual income on Conspicuous goods.

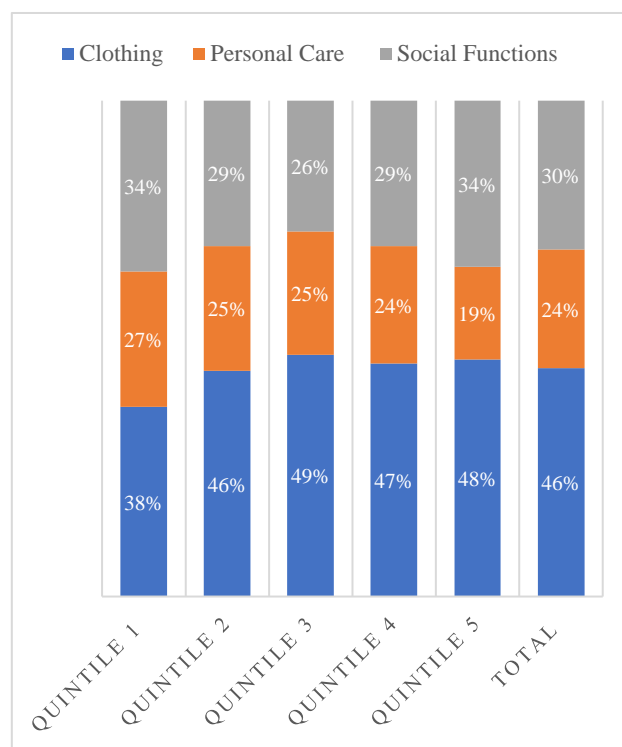
A further examination of the composition of the Conspicuous Consumption aggregate signifies (graph 5) that (according data sample 1) on average 47% of the total Conspicuous Consumption expenditure is allocated to clothing. The poorest income quintile devotes relatively less to Clothing (42%) and the third income quintile relatively more (50%). On average 21% of the total Conspicuous Consumption budget is allocated to Personal Care. The third income quintile is with 24%, the group that spent relatively the most on Personal Care items. On average 32% of the total Conspicuous Consumption expenditures exist of Social Functions items. The lowest and the highest household income quintile spent relatively more (35%). Graph 6 shows that the pattern of data sample 2 is fairly similar to the pattern of data sample 1. In data sample 2, the households spent on average more on Personal Care (24%) and less on Clothing (46%) and Social Functions (30%). The differences between the spending pattern of the income quintiles of data sample 1 and 2 are minimal.

	<i><b>METHOD I</b></i>		<i><b>METHOD II</b></i>	
<i><b>Quintil</b></i>	Average Conspicuous Consumption (NGN)	Average Conspicuous Consumption Ratio	Average Conspicuous Consumption (NGN)	Average Conspicuous Consumption Ratio
<i><b>1</b></i>	10.575	0.063	20.903	0.114
<i><b>2</b></i>	15.086	0.052	24.766	0.085
<i><b>3</b></i>	22.157	0.054	30.819	0.075
<i><b>4</b></i>	33.329	0.059	44.100	0.077
<i><b>5</b></i>	63.486	0.060	84.398	0.077
<i><b>Total</b></i>	29.303	0.057	48.484	0.082

**Table 13 Average absolute and relative expenditure of CC per household income quintile for Method I & Method II**



**Graph 6 Composition of Conspicuous Consumption in data sample 1 for Nigeria**



**Graph 5 Composition of Conspicuous Consumption in data sample 2 for Nigeria**

#### 4.3.1 RESULTS

Models 1 to 4, shown in table 14, cover the multilevel regression analyses of the data sample 1. Model 1 and 2 only contain main effects. Model 3 and 4 contain the main effects plus all significant interaction effects. The first model shows a positive and statistically significant (at a 1% significance level) correlation

between *Gini* and *CCR*. The coefficient implies that an increase in inequality by one unit, would imply a higher CCR of 0.047 points. This estimate is in line with the hypothesized effect. The other context factors did not show any significant effects. The *lowest income quintile* is positive and statistically significant (at a 1% significance level). The estimate of this dummy variable implies that households in the poorest quintile have a 0.013 point higher CCR than those in the wealthiest quintile (the reference category). The idea that households devote a smaller part of their total expenditure on status goods when their income is higher is in accordance with the formulated hypothesis. The hypothesized negative correlation between age and CCR is supported by the empirical findings. The *age dummies up to 25 years* and *26-50 years* are statistically significant at a 0.1% significance level, and the dummy *51-75 years* at a 1% significance level. The positive dummy variables indicate that households with a family

head in the third age category have a 0.012 point higher CCR, than those of which the household head belongs to the oldest age group. For the household heads in the second youngest age group, the CCR is 0.017 points higher and for the youngest age group it is 0.028 points higher than for the highest age group. In sum, the older the households head, the lower the CCR of the household. In contrast to the defined hypothesis, the estimates of *education* suggest a positive and statistically significant ( $p < 0.001$  and  $p < 0.01$ ) correlation between the household head's *education level* and the CCR. Household heads with no university degree as highest attained education level belong to households with 0.014 points lower CCR compared to those with a university degree. For those with a secondary school degree this is 0.011 points lower and for the ones with only a primary degree this is 0.018 points lower. Households with a head who enjoyed no education at all, have a 0.016 point lower CCR than heads with a university degree. The analysis identified no statistically significant effect for *household size* and the family head's *gender*.

In model 2, the *household income quintile* dummies are replaced by the variables *log household expenditure* and *poor*. The *Log household expenditure* is statistically significant ( $p < 0.01$  level), while *poor* is not statistically significant. The negative coefficient of the income proxy is in line with the correlation that is observed for the *household income quintile* dummies: the higher the household's income, the lower the household's CCR. The rest of the estimates of model 2 is identical to the estimates of model 1.

Model 3 demonstrates the result of the interaction effect as an addition to the main effects of model 1. The interaction effect between the *average level of income* and *urban* is negative and statistically significant at a significance level of 1%. This outcome can be interpreted as follows: The higher the average level of income of the household's cluster, the higher the household's CCR, though this effect is less in urban areas compared to rural areas. Also, model 4 exhibits the same outcome for the interaction effect between *average level of income* and *urban*. Both models are therefore in line with the formulated hypothesis suggesting that living in an urban weakens the positive correlation between the average level of income and CCR. The main effects of model 3 and 4 are similar to the main effects of model 1 and 2.

The results of the multilevel regressions of data sample 2 are set out in model 5 to 8 (table 15). As can be observed from the fifth model, *Gini* is statistically significant at a 5% level. The sign of the coefficient remains positive and therefore confirms the formulated hypothesis. No significant correlations are detected between the remaining context factors and the CCR. With respect to the household factors, the *lowest income household quintile* is now statistically significant (at  $p < 0.001$  level) and implies again that the poorest households spend a

relatively larger part of their income on Conspicuous Consumption items than the wealthiest households. Besides, *household size* and the household head's *gender*, also the head's *age* became statistically insignificant. *Education* is still statistically significant but at a higher significance level ( $p < 0.05$ ). In sum, the findings indicate that the higher the educational level of the household head, the higher the CCR. It rejects therefore the formulated hypothesis.

Model 6 demonstrates a larger positive coefficient for *Gini* and a more negative coefficient for the *Log household expenditure*. The test outcomes for *education* have the same pattern as for model 5.

The interaction effect between *average level of income* and *urban*, demonstrated in model 7 and 8, are statistically significant ( $p < 0.01$  and  $p < 0.05$  respectively). In line with the formulated hypothesis, the negative coefficient can be interpreted as follows: households in unequally distributed areas have a higher CCR compared to households in more equally distributed areas, however this effect is weaker for households in urban areas. The statistically significant main effects remain comparable to those of model 5 and 6.



**CONSPICUOUS CONSUMPTION RATIO**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Context factor</b>				
<i>Gini</i>	0.047**(0.01)	0.049**(0.01)	0.045** (0.01)	0.049**(0.00)
<i>Average level of income</i>	0.000055 (0.00)	0.000095 (0.00)	0.000102 (0.00)	0.000138 (0.00)
<i>Average level of education</i>	0.004(0.00)	0.003 (0.00)	0.004 (0.00)	0.004 (0.00)
<i>Urban</i>	-0.004 (0.00)	-0.004 (0.00)	-0.003(0.00)	-0.003(0.00)
<b>Household factor</b>				
<i>Household size</i>	0.000(0.00)	0.001 (0.00)	0.000(0.00)	0.001(0.00)
<i>Income</i>				
Log expenditure		-0.009**(0.00)		-0.009**(0.00)
Poor		-0.004 (0.00)		-0.004(0.00)
<i>Household quintile</i>				
1st	0.013**(0.00)		0.014**(0.00)	
2nd	-0.000(0.00)		-0.000(0.00)	
3rd	0.001(0.00)		0.001(0.00)	
4th	0.004(0.00)		0.004(0.00)	
5th	Reference		Reference	
<i>Age</i>				
Up to 25	0.028*** (0.01)	0.028*** (0.01)	0.028*** (0.01)	0.028*** (0.01)
25-50	0.017*** (0.00)	0.017*** (0.00)	0.017*** (0.00)	0.017*** (0.00)
51-76	0.012** (0.00)	0.012** (0.00)	0.013** (0.00)	0.013** (0.00)
Above 76	Reference	Reference	Reference	Reference
<i>Male</i>	0.002(0.00)	0.002(0.00)	0.002(0.00)	0.002 (0.00)
<i>Education</i>				
No education	-0.016*** (0.00)	-0.018*** (0.00)	-0.016*** (0.00)	-0.018*** (0.00)
Primary education	-0.018*** (0.00)	-0.020*** (0.00)	-0.018*** (0.00)	-0.020*** (0.00)
Secondary education	-0.011** (0.00)	-0.012** (0.00)	-0.011** (0.00)	-0.013** (0.00)
No university	-0.014** (0.00)	-0.016** (0.00)	-0.015** (0.00)	-0.016** (0.00)
University	Reference	Reference	Reference	Reference
<b>Interaction effects</b>				
<i>Average income * urban</i>			-0.000325* (0.00)	-0.000302* (0.00)
<b>Constant</b>	0.041*** (0.00)	-0.367*** (0.00)	0.041*** (0.00)	-0.367*** (0.00)
<b>Observations</b>	4.550	4.550	4.550	4.550
<b>-2 restricted log likelihood ratio</b>	-11717	-11728	-11707	-11717
* <0.05, ** P<0.01, ***P<0.001				

**Table 14 Multilevel regression with data sample 1 for Nigeria**

### CONSPICUOUS CONSUMPTION RATIO

Variable	Model 5	Model 6	Model 7	Model 8
<b>Context factor</b>				
<i>Gini</i>	0.077*(0.03)	0.094**(0.03)	0.073*(0.03)	0.091**(0.03)
<i>Average level of income</i>	0.000073(0.00)	0.000131(0.00)	0.000151(0.00)	0.000196(0.00)
<i>Average level of education</i>	0.006(0.00)	0.006(0.00)	0.006(0.00)	0.006(0.00)
<i>Urban</i>	-0.009(0.01)	-0.008(0.01)	0.017 (0.01)	0.013(0.01)
<b>Household factor</b>				
<i>Household size</i>	-0.001(0.00)	0.000(0.00)	-0.001	0.000(0.00)
<i>Income</i>				
Log expenditure		-0.025*** (0.01)		-0.024*** (0.01)
Poor		-0.010(0.01)		-0.008(0.01)
Household quintile				
1st	0.045*** (0.01)		0.047*** (0.01)	
2nd	0.015(0.00)		0.017*(0.01)	
3rd	0.005(0.00)		0.005(0.01)	
4th	0.006(0.00)		0.005(0.01)	
5th	Reference		Reference	
<i>Age</i>				
Up to 25	0.018(0.01)	0.016(0.02)	0.018(0.01)	0.016(0.02)
25-50	0.016(0.01)	0.014(0.01)	0.016(0.01)	0.014(0.01)
51-76	0.0.16(0.01)	0.014(0.01)	0.0.16(0.01)	0.014(0.01)
Above 76	Reference	Reference	Reference	Reference
<i>Male</i>	0.007(0.01)	0.006 (0.01)	0.007(0.01)	0.006 (0.01)
<i>Education</i>				
No education	-0.020*(0.01)	-0.023*(0.01)	-0.021*(0.01)	-0.025*(0.01)
Primary education	-0.020*(0.01)	-0.025** (0.01)	-0.021*(0.01)	-0.026** (0.01)
Secondary education	-0.017*(0.01)	-0.020*(0.01)	-0.019*(0.01)	-0.022*(0.01)
No university	-0.021*(0.01)	-0.024*(0.01)	-0.022*(0.01)	-0.025*(0.01)
University	Reference	Reference	Reference	Reference
<b>Interaction effects</b>				
Average level of income * urban			-0.001** (0.00)	-0.001* (0.00)
<b>Constant</b>	0.053*** (0.01)	0.054*** (0.01)	0.052*** (0.01)	0.054*** (0.01)
<b>Observations</b>	1.663	1.663	1.663	1.663
<b>-2 restricted log likelihood ratio</b>	-3275	-3282	-3268	-3273
* <0.05, ** P<0.01, ***P<0.001				

Table 15 Multilevel regression with data sample 2 of Nigeria

#### 4.3.2 ROBUSTNESS TEST

In this robustness test, the Gini Coefficient is replaced by the Coefficient of Variation. Within the clusters of Nigeria, the CV ranges from 0.15 to 1.54 The estimates in APPENDIX F

demonstrate that the sign of the CV is just like the Gini coefficient positive. However, the significance ( $p < 0.05$ ) and the magnitude (around 0.015) of CV is smaller than the Gini coefficient. The remaining estimates are similar for both the model with the Gini and the CV. It can therefore be concluded that the analyses are robust.

## 5 DISCUSSION & CONCLUSION

In the previous section, households of Malawi, Ethiopia and Nigeria were separately examined with the help of multilevel regressions. In the following sections, the findings will be discussed in the light of the formulated hypotheses. An attempt is made to explain diverging outcomes or unexpected results. Thereafter, the limitations of this thesis will be outlined whilst simultaneously offering suggestions for future research. Furthermore, a conclusion will be presented and policy recommendations will be given.

### 5.1 DISCUSSION

Although, the three countries cannot be compared to one another, it is however possible to discover a common pattern amongst the outcomes reflected in table 16. With respect to the context factors, inequality measured by both Gini and CV turned out to have no influence in Malawi and Ethiopia. Only for Nigeria, the results seemed to confirm the formulated hypothesis saying that the higher the level of inequality, the higher the household's CCR tends to be. The average level of income was exclusively statistically significant for Ethiopia. However, the negative coefficient rejected the hypothesis which argued that the higher the cluster's average level of the income, the higher the household's CCR. Also, the hypothesis concerning the average level of education found little support. Only data sample 1 of Malawi showed a positive significant effect. For sample 2 this effect disappeared and Nigeria and Ethiopia demonstrated no significant effect at all. A possible explanation for these unsatisfactory outcomes could be the choice for cluster as context level. Perhaps, clusters are not the most optimal proxy for reference groups, since their selection is only based on probability in proportion to size selection criteria. It may be likely that smaller groups or groups with shared characteristics are a better reflection of reference groups. Unfortunately, the provided data does not allow to test for this.

Considering urbanization as a main factor, the findings of Malawi (sample 1) and Ethiopia support the formulated hypothesis. This implies that Malawian households in urban areas indeed have a higher CCR compared to those in rural areas. For Ethiopia, it means that families in small towns have a higher CCR compared to households in rural areas. Surprisingly, Nigeria shows no significant effect. Though this could be attributed to the fact that Nigeria has larger cities (in their database) than the other two countries. Since the data only includes a dichotomous variable for urbanization, it is not possible to check for differences between for instance the size of towns and cities.

With regard to the household factors, a more unambiguous view was found. The overall findings (with exception of data sample 1 of Malawi) support the compensatory consumption theory: Lower income groups spend relatively more on Conspicuous goods compared to higher income groups. Especially the lowest income quintile is inclined to spend a relatively larger part of their total income on Conspicuous items in comparison to the highest income quintile. Surprisingly, the analysis of the variable poor did not confirm to have any effect on CCR. This apparent lack of correlation could be attributed to the adoption of the World Bank's global poverty line. This poverty measure includes food, clothing and shelter. Perhaps, it would have been more suitable to deduce the poverty line from solely the daily minimum calorie requirement. This would capture the most severe poverty and come closer to the idea of the subsistence level.

Furthermore, the hypothesis saying that males spend a larger part of their income on Conspicuous Consumption, was only supported by data sample 1 of Malawi. For Nigeria and Ethiopia there appeared to be no differences between male or female household heads. It could be reasoned that in Nigeria and Ethiopia, for instance, males have less say in consumption decisions even though they are officially the family head. This however cannot be deduced from the provided data.

Moreover, the effects of the age and education level of the household head were strongly pronounced in all models. The empirics of the three African countries backed up the age hypothesis stating that the younger the household head, the more the household relatively spends on status items. The analyses of education did not provide any support for the formulated education hypothesis. More interestingly, the opposite effect was observed throughout the country samples: households with a head who attained a university level have a higher CCR compared to those with a lower educated household head or family head without any education. Possible explanations could be sought in the fact that the theories on education are based on the Western educational system and do not consider differences in schooling in other parts of the world. Another explanation could be that higher educated are more susceptible to the international demonstration effect. This thesis exclusively focuses on reference groups within local proximity. However, it is assumed that especially higher educated, due to the educational system (Wilson, 1972), more developed communication systems and more contact with international colleagues (Teferra, 2000) are more exposed to the lifestyle and ideas of a wider area. Because physical distance declines especially for the higher educated, they get more directly in contact with and are more aware of the situation in the developed world. It could be argued that the highly educated might envy their associates in

wealthier countries and want to emulate their wealth. It could be presumed that the lower an individual is educated, the more that individual is isolated from stimuli of the developed world and the less he/she is triggered to engage in Conspicuous Consumption. The precise implications of this effect however could be a topic of future research.

Furthermore, the interaction analysis revealed that the effect of income inequality depends on where the household lives. The findings for Nigeria and Malawi (data sample 2) confirm the hypothesis arguing that urban households are less triggered by income inequality compared to rural households. Additionally, in Nigeria, the interaction effect demonstrates that households in areas with a higher average level of income, have a higher CCR compared to areas with a lower average level of income, but that this effect is weaker in urban areas. Both findings confirm the idea that in urban areas it is harder to observe the wealth of referents. In accordance with the hypothesis, in Ethiopia, living in a poor household strengthens the positive relation between inequality and CCR. Thus, poor households in unequally distributed areas have the tendency to spend a larger part of their income on Conspicuous Consumption than rich households under the same circumstances. Oddly, in Malawi the opposite effect was observed: Here the rich are more triggered to spend larger fractions of their income on Conspicuous items. A reasonable explanation for this cannot be found and thus requires further investigation.

<i>Factor</i>	<i>Hypothesized relation</i>	<i>Malawi</i>	<i>Ethiopia</i>		<i>Nigeria</i>		
		MI	MII	MI	MII	MI	MII
<b>Context factors</b>							
<i>Inequality</i>	(+)	/	/	/	/	(+)	(+)
<i>Average Level of Income</i>	(+)	/	/	(-)	(-)	/	/
<i>Average Level of Education</i>	(+)	(+)	/	/	/	/	/
<i>Urban/Small Town</i>	(+)	(+)	/	(+)	(+)	/	/
<b>Household factors</b>							
<i>Income</i>	(-)	(+)	(-)	(-)	(-)	(-)	(-)
<i>Poor</i>	(-)	/	/	/	/	/	/
<i>Male</i>	(+)	(+)	/	/	/	/	/
<i>Age</i>	(-)	(-)	(-)	(-)	(-)	(-)	(-)
<i>Education</i>	(-)	(+)	(+)	(+)	(+)	(+)	(+)
<b>Interaction effects</b>							
<b>Inequality* urban</b>	(-)	/	(-)	/	/	(-)	(-)
<b>Inequality * income</b>	(-)	(+)	(+)	(-)	(-)	/	/
<b>Average level of Income*urban</b>	(-)	/	/	/	/	(-)	(-)

**Table 16 Summary of multilevel regression results**

## 5.2 LIMITATIONS

Besides the limitations already touched upon in the discussion session there is still a number of shortfalls that needs to be addressed, which at the same time offers opportunities for future research.

First, limitations concerning the measurement of Conspicuous Consumption will be addressed. The *Visibility Index* used in this research is inspired by the indices of Heffetz (2007), Charles et al. (2009) and Khamis (2012) which are based on surveys conducted in the USA and India. As already mentioned, there is no empirical research yet that measures the sub-Saharan African's perception of visible consumption<sup>13</sup>. In an attempt to correct for this shortcoming, the product category *Social Functions* is added to the Visibility Index. However, whether it truly assesses all Conspicuous goods cannot be said with absolute certainty. In future research it would be a substantial improvement if visibility surveys could be carried out in different sub-Saharan African countries. Moreover, the Visibility Index only captures snapshots. Status-intensity of goods can change quickly over time. It would, therefore be reasonable to perform the visibility surveys occasionally. This could be especially relevant for countries with developing consumer markets. Furthermore, the surveys of the previous mentioned authors only assess which product groups are perceived as visible and displaying wealth, while it does not estimate from which consumed amount they are perceived as Conspicuous. For example, clothing is considered a Conspicuous good, while it also functions as a basic good. Intuitively, only from a certain quantity or certain price, clothing can be regarded as genuinely a status-seeking good. Accordingly, it may be of value if the survey would be adjusted in such a way that it also determines a threshold.

Second, the household data used for this thesis had some drawbacks. Because the household questionnaire gave no information about the purchasing value of *jewellery* and *recreation/entertainment* goods, these items had to be omitted from the Visibility Index. It is therefore a possibility that the expenditure on Conspicuous Consumption is underestimated. Next to that, the surveys contain measurements over different time periods. For some products, the expenditure of only the last quarter or last month is asked. As result no data on expenditure is available for the remaining months and quarters of that year, which makes it difficult to

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<sup>13</sup> Even Kaus (2013) used the American Visibility Index for the analysis of South Africa.

compute annual data. In this research, the issue is partially circumvented as explained in the method section. All in all, it cannot be ruled out that the consumption aggregates are over- or underestimated. Additionally, the structure and content of the LSMS's of the three countries differed to such extent that it was not possible to integrate them into one data set. It would have been more convenient if all consumer surveys were structured in the same manner and identical product categories were included. This could have offered an opportunity for cross-country comparisons, for example to examine the effect of the level of national development or institutional implications. Additionally, due to this reason and practical restrictions, it was only possible to analyze Malawi, Ethiopia and Nigeria. To get a more comprehensive overview of sub-Saharan Africa, more countries should be studied.

And lastly, the findings should be interpreted with caution, as only cross-sectional data was used. Correlations found in this thesis imply no strict causation. It would be of added value if the research should be repeated with panel data. Much literature points out the dynamic process of Conspicuous Consumption in which individuals react on and imitate each other (e.g. Friedman & Ostrov, 2008; Bellet & Sihra, 2015).

### 5.3 CONCLUSION

Although, most studies are conducted in the developed world, a modest number of literature indicates that Conspicuous Consumption is a universal practice. To understand how this Conspicuous Consumption behaviour takes shape in the developing world, a quantitative study was conducted on three sub-Saharan countries: Malawi, Ethiopia and Nigeria. Conspicuous Consumption is in this thesis operationalized as the consumption of 'visible and highly portable goods'. Based on the work of Heffetz (2007), Charles et al. (2009) and Khamis (2012) who assessed the consumer's perception on the visibility of product categories, a Visibility Index was composed. With the help of literature about collectivistic cultures, this Visibility Index was adjusted to fit the sub-Saharan context. After alternations, the Conspicuous Consumption measure consisted of *Clothing*, *Personal Care* and *Social Functions*.

The conceptual framework of this thesis included socio-economic and demographic factors at both the household and context level. Determinants at the household level existed of household income, and the household head's gender, age and educational level. The factors at the cluster level entailed the level of inequality, the average level of income, the average level of education, and urbanization. Moreover, interactions were evaluated, to get a better grasp of the effect of the interplay between household and context level factors on Conspicuous Consumption. Due to the different levels in the explanatory factors, the method of multilevel regression analysis was selected. Because of the varying content and structure of the household



questionnaires, all three nations had to undergo a separate treatment. Although this deprived the chance to create a bigger data sample and to compare the countries with each other, it did however offer the opportunity to analyse the countries more in depth.

Theory about status-driven consumption put much emphasis on the importance of the reference group and the social environment. It was therefore very likely that context factors would play an important role in determining expenditure on Conspicuous Consumption. It was even assumed that this effect would be larger for collectivistic countries, like Malawi, Ethiopia and Nigeria. However, the empirical findings did in general not support this assumption. The average level of income and education of the household's cluster did not seem to affect Conspicuous Consumption consistently in all three countries. In contrast, it was found that the place of living in general does make a difference. Households in cities and towns devote larger fractions of their income to status consumption compared to households in rural areas. Inequality does positively affect Conspicuous Consumption, though the effect of it varies substantially across income and areas. Especially in rural areas, household's Conspicuous Consumption appeared to be triggered by inequality. The moderating effect of income on inequality provided no unambiguous answers.

Remarkably, it was identified in this thesis that the features of the household itself have a more significant effect on Conspicuous Consumption behavior rather than factors in the social environment. First, the absolute income of the household head has a strong negative impact on spending on Conspicuous goods. The findings showed that on average the poorest part of the population has the tendency to devote a larger part of their income to Conspicuous Consumption items. Secondly, the age of the household head turned out to be a consistent determinant. It is found that younger household heads also tend to be more triggered to devote a larger fraction of their income to status items. And third, the findings point out that the level of education is an important factor: Highly educated appear to spend a relatively higher part of their income on Conspicuous goods. It can be said that this unexpected effect of education is one of the most interesting findings of this thesis. In general, (higher) education is stimulated and recognized as a panacea for both social and economic development. However, negative externalities of higher education such as an increase in Conspicuous Consumption have not often been noted. It would therefore be meaningful to further examine this topic.

Although this thesis had some limitations, it can be used as a starting point for future research concerning Conspicuous Consumption in the developing world. More comprehensive insights from for instance behavioral economics could contribute to the design of developmental policies aimed at diminishing Conspicuous Consumption.

#### 5.4 POLICY IMPLICATIONS

As already mentioned, Conspicuous Consumption can be considered as wasteful behavior if it crowds out productive investments and hinders the development of countries. Measures against Conspicuous Consumption are not new. The president of Tadjikistan openly criticized wealthy citizens for ‘showing off their wealth’ as it would set a standard for the less affluent population. He banned golden teeth, the use of cell phones and big birthday parties. Moreover, he restricted the number of wedding guests (NPR, 2008). Also, in sub-Saharan Africa governments show awareness of the negative effects of Conspicuous Consumption. Perfumes, cosmetics, jewelry and leather are among the products that are targeted for luxury taxation (Cnossen, 2003). Though, restriction and taxation of luxury goods appears to be difficult, as it is hard to determine what is deemed to be exactly a Conspicuous Good. Moreover, sometimes restriction or taxations can even increase the status-intensity of a good, as a higher level of scarcity might increase the added value to status of a good.

This thesis offers three alternative insights to improve developmental policies. First, again, it should be emphasized that a one-size-fits-all approach is inappropriate. Sub-Saharan Africa is diverse and varied and thus demands tailor-made policies. The findings show that in every country, Conspicuous Consumption behavior is subject to different factors and in turn, to varying degrees.

Second, a further important implication is the effect of inequality. It is known that a certain level of income inequality in a society is unfavorable as it slows down growth and can foster social unrest. As indicated by this thesis, it also becomes evident that inequality promotes envy and competitive status consumption. However, the findings also showed that the influence varied per country, living condition and income group. Redistribution policies therefore need to be reconsidered for different social environments.

Third, instead of introducing a nationwide approach, policies can be narrowed down to “problem groups”. In this thesis, it became evident that income groups differ in the degree to which they are subject to status consumption. The poor are among the groups that are at most risk. Their feeling of social deprivation causes a higher need for Status Consumption. Ending poverty would of course be the ultimate goal. Though, policies could offer other methods to diminish the feeling of deprivation without status consumption. For instance, programs aimed at creating self-esteem or own identity. Moreover, this work highlighted that household heads, which are young or higher educated are the most sensitive for Conspicuous Consumption behavior. These groups could be targeted to deal with Status Consumption through financial training and awareness projects: more attention could be paid to investment decisions or

savings. The high focus on stimulating savings is not new for development policies, though this study reconfirms the urgency.

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## APPENDICES

### APPENDIX A - REGIONS

**Table 1: Final Sample Distribution (500 EAs & 5,000 Households for Panel Survey by State, Urban and Rural Sectors, within Each Zone)**

Zone	State	Total		Urban		Rural	
		No. EAs	No. Hhs.	No. EAs	No. Hhs.	No. EAs	No. Hhs.
North-Central Zone	Benue	16	160	2	20	14	140
	Kogi	12	120	4	40	8	80
	Kwara	12	120	6	60	6	60
North-East Zone	Nasarawa	7	70	1	10	6	60
	Niger	18	180	4	40	14	140
	Plateau	11	110	2	20	9	90
	FCT Abuja	4	40	3	30	1	10
	Adamawa	12	120	1	10	11	110
	Bauchi	17	170	3	30	14	140
	Borno	21	210	5	50	16	160
	Gombe	8	80	1	10	7	70
	Taraba	9	90	0	0	9	90
	Yobe	13	130	3	30	10	100
North-West Zone	Jigawa	13	130	2	20	11	110
	Kaduna	12	120	4	40	8	80
	Kano	20	200	3	30	17	170
	Katsina	18	180	3	30	15	150
	Kebbi	10	100	1	10	9	90
	Sokoto	8	80	2	20	6	60
	Zamfara	9	90	2	20	7	70
South-East Zone	Abia	11	110	4	40	7	70
	Anambra	22	220	12	120	10	100
	Ebonyi	14	140	1	10	13	130
	Enugu	14	140	3	30	11	110
	Imo	19	190	2	20	17	170
South-South Zone	Akwa-Ibom	15	150	4	40	11	110
	Bayelsa	7	70	1	10	6	60
	Cross River	13	130	3	30	10	100
	Delta	14	140	4	40	10	100
	Edo	10	100	5	50	5	50
	Rivers	21	210	8	80	13	130
	Ekiti	8	80	6	60	2	20
South-West Zone	Lagos	17	170	16	160	1	10
	Ogun	11	110	7	70	4	40
	Ondo	13	130	6	60	7	70
	Osun	18	180	14	140	4	40
	Oyo	23	230	15	150	8	80

**Appendix Table 1 Geographical distribution of Nigerian data sample**

**Table 1.1: ERSS Sample**

	Population share	Rural		Small town	
		EAs	Households	EAs	Households
National	100.0%	290	3466	43	503
<i>Regions</i>					
Tigray	6.6%	30	360	4	48
Afar	1.7%	10	120	2	24
Amhara	26.6%	61	728	11	127
Oromiya	37.6%	55	656	11	125
Somali	4.5%	20	237	3	36
Benishangul-Gumuz	1.0%	10	120	1	12
SNNP	20.8%	74	885	10	119
Gambela	0.4%	10	120	1	12
Harari	0.3%	10	120	0	0
Dire Dawa	0.5%	10	120	0	0

**Appendix Table 2 Geographical distribution of Ethiopian data sample. Source: ERSS Survey report – The World Bank**

Table 2: Distribution of IHS3 Sample EAs and Households by District, Urban/Rural Areas

District	Total		Urban		Rural	
	EAs	Households	EAs	Households	EAs	Households
<b>NORTHERN REGION</b>	96	1534	10	160	86	1374
Chitipa	24	384	2	32	22	352
Karonga	24	384	4	64	20	320
Nkhata Bay	24	382**	1	16	23	366
Rumphi	24	384	3	48	21	336
<b>CENTRAL REGION</b>	312	4985	70	1116	242	3869
Dedza	24	383*	1	16	23	367
Dowa	24	384	1	16	23	368
Kasungu	24	384	1	16	23	368
Lilongwe City	36	572*****	36	572	0	0
Lilongwe, non-city	36	574**	0	0	36	574
Mchinji	24	384	1	16	23	368
Mzimba	24	384	0	0	24	384
Mzuzu City	24	384	24	384	0	0
Nkhotakota	24	384	2	32	22	352
Ntcheu	24	384	1	16	23	368
Ntchisi	24	384	1	16	23	368
Salima	24	384	2	32	22	352
<b>SOUTHERN REGION</b>	360	5752	60	957	300	4795
Balaka	24	384	2	32	22	352
Blantyre City	24	383*	24	383	0	0
Blantyre, non-city	24	383*	0	0	24	383
Chikwawa	24	384	0	0	24	384
Chiradzulu	24	384	1	16	23	368
Machinga	24	384	1	16	23	368
Mangochi	24	383*	1	16	23	367
Mulanje	24	384	0	0	24	384
Mwanza	24	384	4	64	20	320
Neno	24	384	0	0	24	384
Nsanje	24	384	2	32	22	352
Phalombe	24	384	1	16	23	368
Thyolo	24	382**	0	0	24	382
Zomba City	24	382**	24	382	0	0
Zomba, non-city	24	383*	0	0	24	383
<b>TOTAL</b>	768	12271	140	2233	628	10038

Note: \*/\*\*/\*\*\*\*\* indicate 1, 2 and 4 households, respectively, out of 16 targeted households could not be recovered in visit 2 (after having interviewed households in visit 1, approximately 3 months prior to visit 2). The details are provided in Section 2.30.

**Appendix Table 3 Geographical distribution of Malawian data sample. Source: Integrated household Survey Basic Information Document Malawi**

**Heffetz (2007)**

Imagine that you meet a new person who lives in a household similar to yours. Imagine that their household is not different from other similar households, except that they like to, and do, spend more than average on [PRODUCT]

Would you notice this about them, and if so, for how long would have to have known them, to notice it? Would you notice it almost immediately upon meeting them for the first time, a short while after, a while after only a long while after, or never?

**Charles et al. (2009)**

Q1: Background Information

Sex (male or female); Age ; Race (White, Black, Hispanic, Asian, Native American, or other) ; Current Marital Status (single ; married)

Q2: Beliefs About the Visibility of Consumption Categories

In this set of questions, we are attempting to gauge how easy it is to observe the amount someone spends on a broad set of consumption categories.

Consider a person who lives in a household and community roughly similar to yours. How closely would you have to interact with this person in order to observe that they consistently spend more than average on each of the following consumption categories?

Your answers should range from 1 to 5 with:

1. 1= I would observe their above average spending even if I did not interact with them socially at all.
2. 2= I would observe their above average spending if they were a casual acquaintance and I only occasionally interacted with them socially.
3. 3= I would observe their above average spending only if they were a friend.
4. 4= I would observe their above average spending only if they were a close friend.
5. 5= I would never observe their above average spending no matter how much I interacted with them socially.

### Q3: Response of Spending to Income Changes

In this set of questions, we are trying to understand one's perceptions about the relationship between income and consumption for a variety of consumption categories.

Consider a randomly chosen individual in society. Imagine that this person's lifetime income suddenly increased by 20%. For each item below, tell us how you would expect the person's spending on each of the following items to change.

1. 1= Spending would fall
2. 2= Spending would stay the same
3. 3= Spending would increase by less than 20%
4. 4= Spending would increase by exactly 20%
5. 5= Spending would increase by more than 20%

#### **Khamis (2012)**

The actual wording of the questions that is used in this questionnaire is the same as used in the questionnaire of Charles et al. (2009).

# APPENDIX C – OPERATIONALIZATION VISIBILITY INDICES

VISIBLE CONSUMPTION SUB- CATEGORIES	CEX SURVEY	MALAWI INTEGRATED HOUSEHOLD SURVEY 2010-2011	NIGERIA GENERAL HOUSEHOLD SURVEY 2010-2011	ETHIOPIA RURAL SOCIO- ECONOMIC SURVEY 2011
CLOTHING	<ul style="list-style-type: none"> <li>• Clothing &amp; shoes</li> <li>• Clothing services</li> </ul>	<ul style="list-style-type: none"> <li>• Infant clothing</li> <li>• Baby nappies/diaper</li> <li>• Boy's trousers</li> <li>• Boy's shirts</li> <li>• Boy's jackets</li> <li>• Boy's undergarments</li> <li>• Boy's other clothing</li> <li>• Men's trousers</li> <li>• Men's shirts</li> <li>• Men's jackets</li> <li>• Men's undergarments</li> <li>• Men's other clothing</li> <li>• Girl's blouse/shirt</li> <li>• Girl's dress/skirt</li> <li>• Girl's undergarments</li> <li>• Girl's other clothes</li> <li>• Lady's blouse/shirt</li> <li>• Lady's dress/skirt</li> <li>• Lady's undergarments</li> <li>• Lady's other clothing</li> <li>• Boy's shoes</li> <li>• Girl's shoes</li> </ul>	<ul style="list-style-type: none"> <li>• Infant clothing</li> <li>• Baby nappies/diaper</li> <li>• Boys tailored clothes</li> <li>• Boys dress (ready-made)</li> <li>• Girls dress</li> <li>• Men tailored</li> <li>• Men dress</li> <li>• Women tailored clothes</li> <li>• Women dress</li> <li>• Ankare, George materials</li> <li>• Other clothing materials</li> <li>• Boy's shoes</li> <li>• Men's shoes</li> <li>• Girl's shoes</li> <li>• Lady's shoes</li> <li>• Tailoring charges</li> </ul>	<ul style="list-style-type: none"> <li>• Clothes/shoes/fabric for Men</li> <li>• Clothes/shoes/fabric for Women</li> <li>• Clothes/shoes/fabric for Boys</li> <li>• Clothes/shoes/fabric for Girls</li> </ul>



	<ul style="list-style-type: none"> <li>• Men's shoes</li> <li>• Lady's shoes</li> </ul>			
PERSONAL CARE	<ul style="list-style-type: none"> <li>• Toilet articles &amp; preparations</li> <li>• Barbershops</li> <li>• Beauty parlors and Health clubs</li> </ul>	<ul style="list-style-type: none"> <li>• Bar soap (body soap or clothes soap)</li> <li>• Toothpaste, toothbrush</li> <li>• Glycerin, Vaseline, Skin creams</li> <li>• Other personal products (Shampoo, razor blades, cosmetics, hair products etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Soap and washing powder</li> <li>• Personal care goods (razor blades, cosmetics)</li> </ul>	<ul style="list-style-type: none"> <li>• Hand soap</li> <li>• Other personal care goods (incl. sendel matent).</li> </ul>
SOCIAL FUNCTIONS	<ul style="list-style-type: none"> <li>• Ceremonial expenses</li> <li>• Donations</li> </ul>	<ul style="list-style-type: none"> <li>• Donations – to church charity, beggar</li> <li>• Lobola (bride wealth) costs</li> <li>• Marriage ceremony costs</li> <li>• Funeral costs, household members</li> <li>• Funeral costs, non-household members (relatives, neighbors/friends)</li> </ul>	<ul style="list-style-type: none"> <li>• Donations to church, mosque, other religious group (429)</li> <li>• Dowry costs (515)</li> <li>• Marriage Ceremony costs (516)</li> <li>• Funeral costs (517)</li> </ul>	<ul style="list-style-type: none"> <li>• Ceremonial expenses</li> <li>• Donations to the church</li> </ul>

# APPENDIX D – INDEPENDENT VARIABLES

	Malawi	Nigeria	Ethiopia
<b>Context factors</b>			
Average Income Level	Cluster mean of total annual household expenditure in 10.000 Malawian Kwacha	Cluster mean of total household aggregated expenditures in 10.000 Nigerian Naira	Cluster mean of total annual household expenditure in 1.000 Ethiopian Birr
Inequality	* Cluster GINI coefficient * Cluster GINI Coefficient of Variation	* Cluster GINI coefficient * Cluster GINI Coefficient of Variation	* Cluster GINI coefficient * Cluster GINI Coefficient of Variation
Average Education Level	Cluster mean of highest education level acquired	Cluster mean of highest education level attained	Cluster mean of highest education level attained
<b>Household factors</b>			
Income	* Log of Total Annual Household Expenditure in 10.000 Malawian Kwacha * Household Quintile (1) 20 <sup>th</sup> – Lowest (2) 40 <sup>th</sup> (3) 60 <sup>th</sup> (4) 80 <sup>th</sup> (5) 100 <sup>th</sup> – Highest	*Log of total household aggregated expenditures in 10.000 Nigerian Naira * Household Quintile (1) 20 <sup>th</sup> – Lowest (2) 40 <sup>th</sup> (3) 60 <sup>th</sup> (4) 80 <sup>th</sup> (5) 100 <sup>th</sup> – Highest	* Log of Total Annual Household Expenditure in 1.000 Ethiopian Birr * Household Quintile (1) 20 <sup>th</sup> – Lowest (2) 40 <sup>th</sup> (3) 60 <sup>th</sup> (4) 80 <sup>th</sup> (5) 100 <sup>th</sup> – Highest
Poverty	(0) not poor (1) poor	(0) not poor (1) poor	(0) not poor (1) poor
Urbanization	(0) Rural (1) Urban	(0) Rural (1) Urban	(0) Rural (1) Small Town
Education	Highest education level acquired by household head. (1) None (2) Primary (PSLC) (3) Secondary (JCE, MSCE) (4) Non-University (Non-Univ Diploma) (5) University (Univer Diploma, Postgrad degree)	Highest educational qualifications attained by household head: (1) None (None, n1, n2) (2) Primary (p1-6) (3) Secondary (js1-3, ss1-3, lower 6, upper 6) (4) Non-University (teacher training, vocational/technical, modern school, nce, qur'anic, qur'anic integrated, adult education)	Highest educational qualifications attained by household head. (1) None (Not educated, Kindergarten) (2) Primary (1 <sup>st</sup> -8 <sup>th</sup> grade completed, can read and write) (3) Secondary (9 <sup>th</sup> -12 <sup>th</sup> grade completed, certificate) (4) Non-University (Teacher Training Certificate, NC 9 <sup>th</sup> - 12 <sup>th</sup> grade completed, NC

		(5) University (poly/prof, 1 <sup>st</sup> degree, higher degree)	certificate Level 1-3, NC diploma) (5) University (1 <sup>st</sup> -3 <sup>rd</sup> year college completed, 1 <sup>st</sup> degree, Graduate degree)
Gender	Gender of household head: (0) Female (1) Male	Gender of household head: (0) Female (1) Male	Gender of household head: (0) Female (1) Male
Age	Age of household head in years. (1) Up to 25 years (2) 26-50 years (3) 51-75 years (4) Above 76 years	Age of household head in years. (1) Up to 25 years (2) 26-50 years (3) 51-75 years (4) Above 76 years	Age of household head in years (1) Up to 25 years (2) 26-50 years (3) 51-75 years (4) Above 76 years
<b>Control variable:</b>			
Household size	Number of people in household	Number of people in household	Number of people in household

## APPENDIX E – POVERTY LINE CALCULATIONS

<b>Global Poverty line conversion (\$1,25/day (ppp of 2011))</b>	<b>PPP Conversion Factor (2011)</b>	<b>National poverty line/day in local currency</b>	<b>National poverty line/year in local currency</b>
Malawi	82,85	103,56 MWK	37.800,31 MWK
Ethiopia	7,10	8,88 ETB	3.239,38 ETB
Nigeria	122,08	152,6 NGN	55.699 NGN

Source: World Bank and UN data

# APPENDIX F - ROBUSTNESS TEST

<b>Ethiopia</b>	<b>CONSPICUOUS CONSUMPTION RATIO</b>							
	<b>Model</b>		<b>Model</b>		<b>Model</b>		<b>Model</b>	
	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
<b>Context Factor</b>								
<i>Coefficient of Variation</i>	0,016	0,01	0,015	0,01	0,017	0,01	0,017	0,01
<i>Average level of income</i>	-0,001**	0,00	-0,001**	0,00	-0,001**	0,00	-0,001**	0,00
<i>Average level of education</i>	0,003	0,01	0,003	0,01	0,003	0,01	0,003	0,01
<i>Small Town</i>	0,021*	0,01	0,022*	0,01	0,022*	0,01	0,022*	0,01
<b>Household Factor</b>								
<i>Household size</i>	0,003***	0,00	0,003***	0,00	0,003***	0,00	0,003**	0,00
Quintile 1	0,034***	0,01			0,032***	0,01		
Quintile 2	0,030***	0,00			0,028***	0,00		
Quintile 3	0,020***	0,00			0,019***	0,00		
Quintile 4	0,013*	0,00			0,012**	0,00		
Quintile 5	<i>Reference</i>	<i>Reference</i>			<i>Reference</i>	<i>Reference</i>		
<i>Log Household</i>			-0,017***	0,00			-0,015***	0,00
<i>Poor</i>			0,00	0,00			0,005	0,00
Up to 25	0,028**	0,01	0,029***	0,01	0,028**	0,01	0,028**	0,01
26-50	0,023**	0,01	0,023**	0,01	0,023**	0,01	0,022**	0,01
51-75	0,022**	0,01	0,022**	0,01	0,022**	0,01	0,021**	0,01
Above 76	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>
<i>Male</i>	-0,003	0,00	-0,002	0,00	-0,003	0,00	-0,002	0,00
No education	-0,076***	0,01	-0,077***	0,01	-0,076***	0,01	-0,077***	0,01
Primary Education	-0,069***	0,01	-0,071***	0,01	-0,070***	0,01	-0,071***	0,01
Secondary Education	-0,041***	0,01	-0,042***	0,01	-0,042***	0,01	-0,042***	0,01
No University	-0,024*	0,01	-0,025*	0,01	-0,025*	0,01	-0,025*	0,01
University	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>
<b>Interaction Effects</b>								
<i>Coefficient of Variation * Lowest Quintile</i>					0,032*	0,01		
<i>Coefficient of Variation * Household Expenditure</i>							-0,009	0,01
<b>Intercept</b>	0,124***	0,01	0,144***	0,01	0,126***	0,01	0,145***	0,01
<b>Observations</b>	3568		3568		3568		3568	
<b>-2 Restricted Log Likelihood</b>	-8096,000		-8130,000		-8074,000		-8124,000	

Malawi	CONSPICUOUS CONSUMPTION RATIO							
	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
<b>Context Factor</b>								
<i>Coefficient of Variation</i>	0,004	0,00	0,004	0,00	0,004	0,00	0,004	0,00
<i>Average level of income</i>	-0,0000741	0,00	-0,0000986*	0,00	-0,0000762	0,00	-0,000098*	0,00
<i>Average level of education</i>	0,006**	0,00	0,006**	0,00	0,006**	0,00	0,006**	0,00
<i>Urban</i>	0,005*	0,00	0,005*	0,00	0,005*	0,00	0,005*	0,00
<b>Household Factor</b>								
<i>Household size</i>	0,000	0,00	-0,001	0,00	0,000	0,00	0,000	0,00
<i>Log Household Expenditure</i>			0,004****	0,00			0,004****	0,00
<i>Poor</i>			0,001	0,00			0,001	0,00
Quintile 1	-0,006**	0,00			-0,006**	0,00		
Quintile 2	-0,002	0,00			-0,002	0,00		
Quintile 3	-0,003	0,00			-0,003	0,00		
Quintile 4	0,001	0,00			0,001	0,00		
Quintile 5	Reference	Reference			Reference	Reference		
Up to 25	0,029***	0,00	0,029***	0,00	0,029***	0,00	0,030***	0,00
26-50	0,020***	0,00	0,020***	0,00	0,020***	0,00	0,020***	0,00
51-75	0,010***	0,00	0,010***	0,00	0,009***	0,00	0,010***	0,00
Above 76	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference
<i>Male</i>	0,003**	0,00	0,003**	0,00	0,003**	0,00	0,003**	0,00
No education	-0,015**	0,00	-0,012**	0,00	-0,015***	0,00	-0,011**	0,00
Primary Education	-0,011**	0,00	-0,008	0,00	-0,011*	0,00	-0,007	0,00
Secondary Education	-0,000	0,00	-0,003	0,00	-0,006	0,00	-0,003	0,00
No University	0,006	0,00	0,007	0,00	0,006	0,00	0,007	0,00
University	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference
<b>Interaction Effects</b>								
<i>Coefficient of Variation * Lowest Quintile</i>					-0,015**	0,01		
<i>Coefficient of Variation * Household Expenditure</i>							0,002	0,00
<b>Intercept</b>	0,043***	0,000	0,041***	0,000	0,043***	0,00	0,041***	
<b>Observations</b>	12.262		12.262		12.262		12.262	
<b>-2 restricted Log likelihood</b>	- 39707,39405		- 39729,56811		- 39706,68625		- 39720,05294	

Nigeria		CONSPICUOUS CONSUMPTION RATIO						
	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
<b>Context factor</b>								
<i>Coefficient of variation</i>	0,015*	0,01	0,017*	0,01	0,015*	0,01	0,017*	0,01
<i>Average level of income</i>	0,000	0,00	0,000	0,00	0,000	0,00	0,000	0,00
<i>Average level of education</i>	0,004	0,00	0,003	0,00	0,004	0,00	0,004	0,00
<i>Urban</i>	-0,004	0,00	-0,004	0,00	-0,003	0,00	-0,003	0,00
<b>Household factor</b>								
<i>Household size</i>	0,000	0,00	0,001	0,00	0,000	0,00	0,001	0,00
<i>Log household expenditure</i>			-0,009**	0,00			-0,009	0,00
<i>Poor</i>			-0,004	0,00			-0,004	0,00
<i>Quintile 1</i>	0,013**	0,00			0,014**	0,00		
<i>Quintile 2</i>	-0,001	0,00			0,000	0,00		
<i>Quintile 3</i>	0,001	0,00			0,000	0,00		
<i>Quintile 4</i>	0,004	0,00			0,004	0,00		
<i>Quintile 5</i>	Reference	Reference			Reference	Reference		
<i>Up to 25</i>	0,027***	0,01	0,027***	0,01	0,028***	0,01	0,027	0,01
<i>26-50</i>	0,017***	0,00	0,017***	0,00	0,017***	0,00	0,017	0,00
<i>51-75</i>	0,012**	0,00	0,012**	0,00	0,012**	0,00	0,012	0,00
<i>Above 76</i>	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference
<i>Male</i>	0,002	0,00	0,002	0,00	0,002	0,00	0,002	0,00
<i>No education</i>	-0,016***	0,00	-0,018***	0,00	-0,016***	0,00	-0,018	0,00
<b>Primary education</b>	-0,018***	0,00	-0,020***	0,00	-0,018***	0,00	-0,020	0,00
<b>Secondary education</b>	-0,011*	0,00	-0,012**	0,00	-0,011**	0,00	-0,013	0,00
<b>No university</b>	-0,014**	0,00	-0,016**	0,00	-0,015**	0,00	-0,016	0,00
<b>University</b>	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference
<b>Interaction effects</b>								
<b>Average level of income * urban</b>					-0,000334*	0,00	-0,000312*	0,00
<b>Intercept</b>	0,041***	0,00	-0,372**	0,12	0,042***	0,00	-0,372**	0,12
<b>Observations</b>	4.550		4.550		4.550		4.550	
<b>-2 restricted log likelihood</b>	-8089		11719		-11700		11709	