



## Research Article

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# Materialistic Value Orientation and Attitude toward Environmental Management in Yakurr Local Government Area of Cross River State, Nigeria: Implication for Social Studies Education

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## Abstract

This investigation examined materialistic value orientation and attitude toward environmental management in Yakurr Local Government Area of Cross River State, Nigeria. A single theory was generated to control the examination. Review of initial researches was utilized. Survey blue print was utilized. An accidental sampling technique was used in choosing the 150 persons examined for the investigation. An approved 20 items four point adjusted likert scale poll was the instrument utilized for data assortment. The unwavering quality gauge of the tool for information accumulation was 0.80 utilizing Cronbach Alpha dependability technique. The information was dissected utilizing the simple and multiple linear regression statistical tools. The result of the study revealed that there is a significant influence of materialistic value orientation and attitude toward environmental management in Yakurr Local Government Area. It was recommended that People limit their rate of materialism, it is conceivable to get those people to consider more to be well disposed ways of life as a suitable and appealing decision.

**Keywords:** Value orientation, Biospheric value orientation, Materialistic value orientation, Attitude, Environmental management

## 1. Background to the Study

The mismanagement of resources remains one of the most challenging environmental problems of our time, and nothing influences the nature of our lives as the condition of nature, and no future can

be very worrisome as one in which the living resources, for example, plants and animals which are fundamental for human survival and advancement are progressively being devastated gradually by man's unsustainable activities or mismanagement.

Environmental issues have become more important as global warming threaten our ecosystem and need to be attended to. In other words, there is a developing awareness that the nature of the earth is undermined by issues, for example, the impact of green house gasses, consumption of the ozone surface, hydrological tainting, abatement of varieties of floras and faunas, and dryness (Intergovernmental Panel on Climate Change, 2001). Individuals have as of late understood that common assets are very constrained and harm to the regular habitat and leaves antagonistic effects and negative ramifications for man, thus its safeguarding is of high moral significance. To utilize the earth and its assets well, residents' preconceptions, interest, and attitude need to be taken into account.

As far as human nature is concerned, the most fundamental determinant of an individual's action towards a given issue, an event, a given situation or circumstance is the person's attitude (Omoogun & Odok, 2013). An individual's attitude refers to the person's evaluation of developing a positive (favourable) or negative (unfavourable) tendency towards demonstrating or showing a given attitude. This implies that when someone develops and harbours a positive attitude towards any scenario which involves the display of his or her action, the person would be more prone to acting in a positive manner. On the other hand, if the person develops and harbours a negative attitude, such a person would be more prone to acting in a negative and destructive manner. The explanation above presents attitude to mean the way an individual thinks or reacts towards a given scenario or issue. In this manner, attitude which is the frame of mind toward the earth mean the manner in which people think and act towards the issues of management of the environment. It is the emotions and concerns an individual could have with respect to the utilization of environmental resources.

In Yakurr Local Government Area, residents place high values on economic prosperity otherwise known as materialism. Insightfully "materialism" implies that nothing can exist without issue and its developments. Materialistic values are characterized in its well known explanation: "dedication to material wants and needs, to the disregard of profound issues; a method for supposition, inclination and life, in view of on material premiums" (Richins and Dawsons, 2012). Belk (1985) clarifies it as "the significance related with material resources by the individual." At the highest essential degree of materialistic characteristics, the ideal conditions that are had are at the motivation behind association of the individual's life and depicted in its outstanding meaning: "promise to material needs and needs, to the carelessness of powerful issues; a procedure for assessment, propensity and life, considering on material premiums" (Richins and Dawsons, 2012). Belk (1985) clarifies it as "the vitality related with material resources by the individual." At the most fundamental degree of materialistic characteristics, the positive conditions that are had are at the reason for get together of the individual's life and develop the focal wellspring of fulfillment or disappointment. Regardless of the route that there are different sentiments on materialistic qualities and the earth in two or three masterful works, there is a general supplement on the impacts of materialistic attributes on the earth (draining assets, contamination and waste). Authorities routinely notice the way that people that are just founded on appearing at their general targets fuel by and large genuineness, hurt reasonable assets and underhandedness the environmental framework while they fortify cash related progress (Strizhakova and Coulter, 2013). Qualities are viewed as basic considering how they are general in nature and in this way may affect different emotions and demeanor simultaneously (Rohan, 2010; Rokeach, 2013).

People who live around there are consistently acquainted with social qualities which advance the getting of riches and material belongings. Regardless, there is developing worry over the organic harm provoked by current degrees of industrialism (Jackson, 2016). Characteristics may be explained as 'contemplations or feelings, [about] connecting with end states or tempers, which ascend above specific conditions, and guide decision or evaluation of disposition and events, and are referenced by relative centrality' (Schwartz and Bilsky, 2010:878).

Clearly human attitude is an essential factor in causing and managing such issues. Different researchers fight that basic issues are developed in human standpoints and attributes. In all honesty, finishing reasonable improvement is fundamentally reliant on trademark attributes (Dietz, Fitzgerald and Shwon, 2015). This is according to Rokeach's portrayal of qualities as the criteria for controlling viewpoints and activities to make and keep up attitudes as it concerns a particular issue (Rokeach, 1973). values are viewed as the most imperative fundamental bits affecting man's tempers and exercises. They envision a fundamental activity at both individual and social stages. They in like way control solitary pretense and shape their activities, decisions and propensities. Attributes likewise mean achieving social solidarity and backing (Gheith, 2013).

Disregarding the way that investigation shows that value bearing has a seminar on institutionalizing feelings of sufficient organization styles, scarcely any exploratory examinations have focused on choosing characteristics and gauges (Vaske, Donnelly, Williams and Jonker 2011). It should be noted, regardless, that as long as we continue eating up things, sully will suffer, yet we can make light of it (Clare, 2016).

Various examinations have tried to perceive esteems that give a reason to common airs and mentality for instance (Karp, 2016; McCarty and Shrum, 2014; Stern, Dietz, Abel, Guagnano and Kalof, 2017). For more than forty years, those that are experts have tried to comprehend the powers that drive individuals to show worried toward characteristic issues. A considerable lot of the investigations directed in Yakurr Local Government Area had given repudiating results about the soundness or change of significant worth direction. The aftereffects of these examinations likewise indicated that worth direction of occupants influence individual and aggregate choices concerning the earth, which they make on everyday schedule. Literature on values direction on the neighborhood level demonstrated the nearness of few examinations that have researched values and its impact on ecological attitude of residents

Attempts have been made by government to address the issue of environmental management. This is plainly proven by the whirlwind of meetings, conferences, reports and inquires about the topic. Nigeria has taken an interest in all significant universal activities and is signatory to various treaties, conventions and shows. Among these are the framework conventions on climate change held in Rio1992, convention on drought and desertification, the biodiversity convention etc. In spite of all these efforts by government, attitude toward environmental management in Yakurr Local Government Area is still poor. It is based on this backdrop the researchers posed a questions; Does materialistic value orientation influence the attitude of residents toward environmental management in Yakurr Local Government Area of Cross River State, Nigeria?

## 2. Theoretical Framework

The Theory of Planned Behaviour by Fishbein & Ajzen (1975) was used in this study

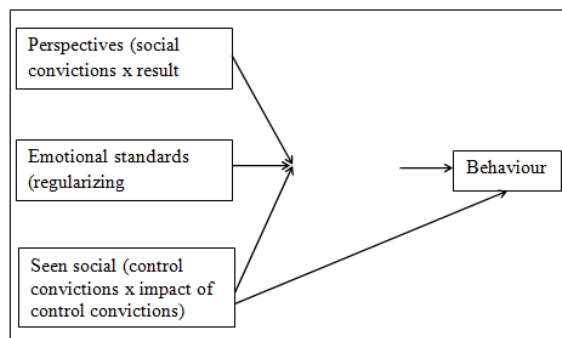


Fig 1: Theory of Planned Behaviour

This theory was propounded by Fishbein & Ajzen (1975). It was originally developed as the theory of reasoned action. Viably, it expresses that human activity is represented by behavioural convictions, regularizing convictions and control convictions that interface to offer ascent to perceived behavioural control, where a belief or conviction is a person's conclusion about an item, and on account of conceivable conduct, the results of that follow up on the article. Intention depends on the frame of mind an individual holds toward the conduct, the impression of social strain to lead the conduct, and the mindfulness that one can direct the conduct. Over the whole attitude is an element of convictions about close to home control and genuine control.

The relevance of this theory to the present study is anchored on the important influence of attitude on behavioural intention. Attitude is premeditated on a set of beliefs directly connected to an individual's evaluation of probable consequences of behavioural intention. Negative attitudes to environmental management are yielded when an individual develops a negative belief while positive attitudes to environmental management are yielded when a positive belief is developed. An understanding of why negative attitudes are displayed towards environmental management could give rise to an understanding of how to influence the attitude of people. A change of attitude in turn, could go a long way in improving people's attitude toward environmental management.

## 2.1 Statement of hypotheses

There exists no huge influence of materialistic value orientation on attitude toward environmental management.

### 2.1.1 Materialistic Value Orientation and Attitude toward Environmental Management

Grunert and Juhl (2015) inspected the connection between materialistic qualities and ecological administration dispositions. The examination test comprised of 174 instructors of both genders, who were solicited to fill a survey comprising from a few sections, so as to gather the fundamental information required. The examination results indicated that testing values on some Danish educators has given outcomes fundamentally the same as different nations, and have discovered a connection between 30 human sub-qvalues and frames of mind toward nature.

Materialistic qualities, or realism, are a well known research theme all through different trains and are increasing more consideration in the natural space (Hurst, Dittmar, Bond and Kasser, 2013). Countries where the accentuation is for the most part on the increase and the abundance of the individual transmit more ozone depleting substances than countries with an increasingly aggregate accentuation (Kasser, 2011).

One explanation behind the negative connection between materialistic qualities and manner toward biological resource utilization may be brought about by the contrary worth places of realism and thinking about nature. By stressing one there is less underline on the other. There seems, by all accounts, to be a worth clash among realism and thinking about nature. Not exclusively do materialistic qualities adversely influence the earth by expanding some ecological harming conduct identified with realism yet in addition by diminishing the probability of increasingly natural agreeable practices that are related with inverse's worth sorts, for example, universalism and thinking about the free gift of God to man (Maio, Pakizeh, Cheung & Rees, 2009).

Realism is a conceited worth, driving people to carry on in manners that above all else serve their advantage and prosperity. Those people are affected by securing of ownership, riches and achievement however to a less degree are they impacted by the government assistance of others, the general public or the indigenous habitat. This may prompt negative mentality toward the earth on the grounds that the conduct that looks after realism, emblematic utilization, can be at chances with professional natural disposition, for example, diminishing utilization (Crompton, 2008).

Examinations on vitality use and vitality sparing have discovered that materialistic people are more averse to spare or monitor vitality for ecological reasons than for cash related reasons

(Sütterlin, Brunner and Siegris, 2011). This model shows how self intrigued thought processes, for example, money related intentions, impact conduct among materialistic people as opposed to aggregate or natural reasons. The individuals who embrace materialistic qualities are more outlandish than others to be eager to decrease vehicle use and utilize other progressively ecological agreeable vehicle modes (Gatersleben, 2011).

The investigation of Jóhannesson (2010) explored a survey based examination that inspected the job of differentiating materialistic qualities and natural qualities as indicators of different star ecological practices among Icelandic school and college understudies (N=367). The examination additionally analyzed whether materialistic qualities further clarify star ecological disposition. Results supported the speculations that materialistic worth are a negative pointer of mentality toward nature. As needs be, while encouraging individuals to take part in more normally welcoming exercises concentrating exclusively on expanding their ecological qualities may have restricted impacts. It is evidently equivalently fundamental to manage materialistic worth heading. Those outcomes have some strategy suggestions that are talked about.

It has been contended that economic advancement and expanded financial security will in general encourage materialistic frames of mind including an expanded worry for nature. As indicated by the realist speculation, people who grow up under positive materialistic conditions will in general spot a higher incentive on non-materialistic issues, during their youthfulness as well as for the remainder of their lives. During a modernization procedure where individuals' financial welfare increments with time, a generational impact is made where more youthful associates deliberately exhibit a higher worry for materialistic qualities. As opposed to the realist speculation, a connection between current pay and realism has been recommended as an elective clarification for the supposed spread of materialistic frames of mind. This would infer that the generational impact is fill in for a present salary impact where social orders with progressively prosperous residents will in general have an increasingly materialistic standpoint. In this article, worry for the earth is taken for instance of a materialistic standpoint.

As indicated by Ronald (2009), individuals will in general grasp increasingly materialistic frames of mind when financial security rises. This adjustment in frame of mind is clarified by a component where accomplices of more youthful individuals with more grounded materialistic viewpoints supplant more seasoned and progressively materialistic ones, along these lines making a continuous reorientation towards realism at the cultural level. The motivation behind why these more youthful accomplices have, as a rule, received more grounded materialistic concerns is on the grounds that they ordinarily have encountered a higher level of financial security during their puberty – when the most profound established mentalities are framed – contrasted and more seasoned ages (Arrow, Bolin, Costanza, Dasgupta, Folke, Holling, Jansson, Levin, Mäler, Perrings and Pimental, 2015).

In an investigation by Birgitta, Niamh and Wokje (2014), the significance of comprehension and advancing expert ecological demeanor among singular shoppers in present day Western Societies is commonly acknowledged. Mentalities and frame of mind change are frequently analyzed to help arrive at this objective. However, albeit materialistic qualities are generally acceptable indicators of mentality and are moderately simple to transform they just assistance clarify specific demeanors. Increasingly steady individual factors, for example, materialistic qualities may influence a more extensive scope of mentalities. Specifically factors which are imperative to oneself are probably going to influence frame of mind across settings and circumstances. This paper inspects the job of materialistic qualities in clarifying individual master ecological mentalities. Auxiliary examinations were led on information from three investigations on UK occupants, with a sum of 2,694 members. Materialistic qualities were acceptable indicators of star natural disposition in each examination. The findings loan support for the idea of realism crusading to advance maintainable demeanor. In addition, it recommends productive future research bearings which ought to investigate the improvement and support of qualities.

Proof proposes some reliable relations between people's qualities and their genius ecological mentality. The individuals who hold increasingly self-amazing quality qualities, for example, thinking

about nature, are bound to act in a naturally neighborly manner and partake in proenvironmental activities than the individuals who put more accentuation on self-upgrade esteems, for example, force and achievement (Schultz et al., 2005).

Despite the fact that qualities can be utilized as an indicator of mentality its prescient worth is more noteworthy when different variables are considered. Qualities don't legitimately control or foresee disposition (Steg et al., 2015). Despite the fact that some exploration has discovered a connection between mentalities towards nature and naturally benevolent conduct, it has been demonstrated that this relationship is just solid with regards to minimal effort family unit practices (Alcock, 2017).

Qualities are anyway viewed as a steady individual factor and can along these lines impact wide scope of conduct. The significance of qualities as indicators of mentality lies in the conviction that they speak to what is of center significance to an individual and in that manner they may impact demeanor over different settings (Gatersleben, Murtagh and Abrahamse, 2014).

Victor (2018) expressed that individuals who share materialistic qualities feel joy when they groups things so they purchase increasingly more to keep up and increment sentiments of satisfaction. Subsequently, they are continually spurred to over-devour. Over-utilization is given as one reason for the ecological debasement (Peatie, 2015, p.24). Thus, realism is naturally precisely inverse to supportable improvement.

Biologically Conscious Consumers are required to purchase less, to expend less, to pick earth less hurtful items, to deliver less waste, to partake in reusing and so on. In principle these individuals can't be 'realists'. People who acquire fulfillment and bliss by material belongings are bound to act naturally focused and are less inclined to get fulfillment by taking part in constructive ecological exercises. These exercises advantage society when all is said in done and people in the future however don't offer any immediate delight to the individual playing out the conduct (McCarty and Shrum, 2011).

There are examines uncovering that profoundly materialistic people are less cognizant about the earth, go to exercises that expect to ensure the earth less frequently and have more prominent environmental impressions (Strizhakova ve Coulter; 2013). Realism is commonly viewed as an ace utilization esteem while environmentalism is related with insurance situated and hostile to utilization esteems (Banerjee and McKeage, 2014). Bhagwati (2013) conversely guarantees that financial development won't increment yet take care of ecological issues.

### **3. Methodology**

The investigation utilized the review examine plan, which is the precise combination of data in regulated structure from a conspicuous masses or depiction (Oso and Onen, 2009). Through this strategy, the examination looked to build up how the circumstance is on the ground similarly as value orientation and environmental management is concerned.

The area of the study is Yakurr Local Government Area of Cross River State. Yakurr Local Government Area was created out of Obubra Local Government in 1987. It has its boundaries with Abi, Biase, Obubra and Akamkpa Local Government Areas. It comprises 13 wards and is inhabited by the people of Agoi, Ibami, Assiga, Mkpani, Ekon, NkoUgep and Idomi. The dominant language is Yakurr. The people are largely farmers and celebrate new yam festival. The most pronounced festival in Yakurr is "Leboku" The projected population of the study comprised 287, 323 respondents (National Population Commission, 2018).

Yakurr Local Government Area produce yam, cocoyam, Cassava, Plantain, Okro, Beans, Maize and Pumpkin. Other Cash crops available in the area are palm, Cocoa, cashew and rubber. There are quite a number of natural resources that are abundant in yakurr namely Kaolin, sand, glass and quartzite, dried coffee kolanut, Natural honey.

It is a popular cave in Ekori which can carry the whole village. The cave located between Mkpani and Ekori is like a hideout during war period. Kosanmah River; it is blue in color though not

drinkable. Nobody fishes there only a particular family sacrifices there once in a while. The Yakurr people have the same traditional attire with the Igbo, both their men and women tie wrapper as the most popular dressing.

1. LEBOKU – The most popular festival in Yakurr
2. OBON – it is a traditional dance which men are initiated into at a particular age.
3. Ebitarbin – traditional dance which identifies somebody as a man in the community.
4. WRESTLING
5. EKELEBI – A dance strictly for women after they have attained a certain age.
6. OBAM – War dance

Yakurr Local Government Area is

The sample for the study was 150 respondents. While accidental sampling technique was employed in selecting respondents for the study. In accidental sampling technique, there is no provision for the estimation of the representativeness of the sample. This means that the instruments were administered on any resident found at the time of sampling. The researchers adopted the Cronbach Alpha reliability method. 30 copies of the questionnaire were administered to respondents outside the area of the study after which results were correlated to determine the coefficient of the reliability of the study. The reliability coefficient was 0.80 and the data was analyzed using a simple linear regression statistical tools.

#### 4. Findings

The outcome from the information investigation is better introduced arranged by the announcement of speculation for better comprehension of the outcomes. Consequently the outcome is exhibited and deciphered by the examination from the information gathered for the hypothesis.

The hypothesis stated that there is no significant influence of materialistic value orientation and attitude toward environmental management. The free factor is materialistic value orientation whereas the reliant factor is attitude toward environmental management. Simple linear regression statistical tool was utilized for information examination. The consequence of this investigation is introduced in Table 1. The result of analysis of data presented in Table 1 revealed that  $R = .261$  which implies that there is a significant influence of materialistic value orientation and attitude toward environmental management.

Further assessment of the result showed that  $Adj R^2 = .062$  which implies that the variation in the dependent variable (attitude toward environmental management) can only be explained by 6.2% contribution of the independent variable (materialistic value orientation). Although the percentage contribution of the independent variable on attitude toward environmental management was small, a cursory look at the analysis of variable table (ANOVA) showed that ( $F=10.862, p<0.5$ ). since  $p (.001)$  is less than  $p (.05)$ , this implies that materialistic value orientation can significantly predict the attitude toward environmental management, hence, the null hypothesis is rejected.

**Table 1:** Simple linear regression analysis of the relationship between materialistic value orientation and attitude toward environmental management (N = 150)

Model	R=.261	R <sup>2</sup> =.068	Adj.R <sup>2</sup> =.062	Std error =2.82285	
Source of variables	SS	Df	MS	F-ratio	p-level
Regression	86.554	1	86.554	10.862	.001
Residual	1179.339	148	7.969		
Total	1265.893	149			

#### 5. Discussion of Findings

It was uncovered from the discoveries acquired from investigation and testing of the speculation that



the invalid theory was dismissed. This inferred there is a noteworthy impact of materialistic value orientation on attitude toward environmental management. This result is not surprising because as people attach much value to materialism, their insight into the earth diminishes and a hostile and negative mentality toward the earth follows. The finding of this investigation is pair with Maio, Pakizeh, Cheung and Rees, (2009) that one explanation behind this negative connection between materialistic qualities and mentality toward the earth may be brought about by the contrary worth places of realism and thinking about nature. By stressing one there is less underscore on the other. There seems, by all accounts, to be a worth clash among realism and thinking about nature. Not exclusively do materialistic qualities contrarily influence the earth by expanding some ecological harming conduct identified with realism yet additionally by diminishing the probability of progressively ecological amicable practices that are related with inverse's worth kinds, for example, universalism and thinking about nature.

Being materialistic is a narcissistic worth, driving people to carry on in manners that as a matter of first importance serve their advantage and prosperity. Those people are impacted by obtaining of ownership, riches and achievement however to a less degree are they affected by the government assistance of others, the general public or the common habitat. This may prompt negative disposition toward nature in light of the fact that the conduct that looks after realism, emblematic utilization, can be at chances with ace ecological mentality, for example, diminishing utilization (Crompton, 2008).

## **6. Implication to Social Studies**

The study may assist Social Studies curriculum planners and developers in Nigeria on the need to organize training, seminars, workshops for youths and residents of Cross River State in order to create awareness on the importance of positive attitude to the environment. The study may also assist Social Studies educators in the university, Teachers training colleges and Colleges of Education in preparing teachers of Social Studies curriculum and harmonizing their programme with the changing trends in teaching environmental issues. This study may as well help Social studies students understand the impact of values on their immediate environment.

## **7. Conclusion**

It was reasoned that there is a critical impact of materialistic worth direction and disposition toward management of the environment in Yakurr Local Government Area. The mismanagement of resources remains one of the most challenging environmental problems of our time, and nothing influences the nature of our lives as the condition of nature, and no future can be very worrisome as one in which the living resources, for example, plants and animals which are fundamental for human survival and advancement are progressively being devastated gradually by man's unsustainable activities or mismanagement. Going by these, the importance of managing the environment sustainably cannot be overemphasized.

## **8. Suggestions**

It was opined that;

1. People ought to limit their materialistic interest, it may be conceivable to get those people to consider more to be well disposed ways of life as a reasonable and appealing decision.
2. The aftereffects of this investigation might be utilized in some intercession or instructive projects with the point of empowering progressively supportable ways of life.



## References

- Arrow, K., Bolin, B., Costanza, R., Dasgupta, P., Folke, C., Holling, C. S., Jansson, B. O., Levin, S., Mäler, K. G., Perrings, C. & Pimental, D. (2015). Economic growth, carrying capacity, and the environment". *Science*, 268, 520-21.
- Belk, R. W. (2015). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, 12, 265-280.
- Bergman, J. Z., Westerman, J. W. Bergman, S. M. Westerman, J. & Daly, J. P. (2014). Narcissism, Materialism and Environmental Ethics in Business Students. *Journal of Management Education*, 38(4), 489-510.
- Bhagwati, J. (2013). The case for free trade. *Sci Am*, 269, 42-9.
- Burroughs, J. E., Chaplin, L. N., Pandelaere, M., Norton, M. I., Ordabayeva, N., Gunz, A., & Dinauer, L. (2013). Using Motivation Theory to Develop a Transformative Consumer Research Agenda for Reducing Materialism in Society. *Journal of Public Policy & Marketing*, 32(1), 18-31.
- Burroughs, J.E. & Rindfleisch, A. (2012). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29(3), 348-370.
- Chapman, A. (2010). *Mistra future fashion—Review of life cycle assessment*. Stockholm: MISTRA - The Foundation for Strategic Environmental Research.
- Clump, M. A., Brandel, J. M., Sharpe, P. J. (2012). Differences in environmental responsibility between materialistic groups. *Psychologia*, 45, 155-161
- Crompton, T. & Kasser, T. (2009). Meeting the Environmental Challenges: The Role of Human Identity. WWF-UK: Panda House, Godalming.
- Dean, J. M., Lovely, M. E. & Wang, H. (2009). Are foreign investors attracted to weak environmental regulations? Evaluating the evidence from China. *Journal of Development Economics*, 90(1), 1-13.
- Dietz, T., Fitzgerald A., & Shwon, R. (2015). Environmental Values, Annu. Rev. Environ. Resource. Retrieved October 21, 2019 from Web site: <http://www.annualreviews.org>.
- Gatersleben, B. (2011). The Car as a Material Possession: Exploring the Link between Materialism and Car Ownership and Use. In K. Lucas, E. Blumenberg and R. Weinberger (editors), *Auto Motives: Understanding Car Use Behaviours* (137-148). Bingley: Emerald Group Publishing Limited.
- Gatersleben, B., Murtagh, N. & Abrahamse, W. (2014). Values, identity and pro-environmental behaviour. *Contemporary Social Science*, 9 (4), 374-392.
- Hansla, A., Gamble, A., Juliusson, A., & Garling, T. (2008). The relationships between awareness of consequences, environmental concern, and value orientations. *Journal of Environmental Psychology*, 28, 1-9
- Howell, R. A. (2013). It's not (just) "the environment, stupid!" Values, motivations, and routes to engagement of people adopting lower-carbon lifestyles. *Global Environmental Change*, 23, 281-290.
- Hurst, M., Dittmar, H., Bond, R. & Kasser, T. (2013). The relationship between materialistic values and environmental attitudes and behaviour: A meta-analysis. *Journal of Environmental Psychology*, 36, 257-269.
- Jackson, T. (2009) *Prosperity without growth: economics for a finite planet* (Oxford, Earthscan).
- Kaiser, F. G., Doka, G., Hofstetter, P. & Ranney, M. A. (2013). Ecological behaviour and its environmental consequences: a life cycle assessment of self-report measure. *Journal of Environmental Psychology*, 23 (1), 11-20.
- Karch, P. (2012): Environmental Awareness in Germany and USA: A Comparative Study of Two Selected student Bodies. Unpublished master's thesis, University of Southern California, USA.
- Karp, D. G. (2016). Values and their effects on pro-environmental behaviour. *Environment and Behaviour*, 28, 111-133.
- Karpudewan, M. & Ismail, Z. (2012). Environmental Value Orientation of Malaysian Pre-service Teachers. <http://www.medc.com.my>.
- Ku, L. & Zaroff, C. (2014) How far is your money from your mouth? The effects of intrinsic relative to extrinsic values on willingness to pay and protect the environment. *Journal of Environmental Psychology*, 40, 472-483.
- McCarty, A. & Shrum, L. J. (2011), "The Influence of Individualism, Collectivism, and Locus of Control on Environmental Beliefs and Behaviour", *Journal of Public Policy & Marketing*, 20 (1), 93-104.
- McCarty, J. A. & Shrum, L. J. (2014). The recycling of solid wastes: Personal values, value orientations, and attitudes about recycling as antecedents of recycling behaviour. *Journal of Business Research*, 30, 53-62.
- McMillan, E. E., Wright, T., & Beazley, K. (2004). Impact Of University - Level Environmental Studies Class on Student's Values. *The Journal of Environmental Education*, 35 (3), pp 19-28.
- Mirosa, M., Lawson, R. & Gnoth, D. (2011). Linking Personal Values to Energy-Efficient Behaviours in the Home. *Environment and Behaviour*, 45 (4), 455-475.

- Omoogun, A. C. & Odok, A. O. (2013). Influence of gender and environmental awareness on attitude of people towards forest conservation in Ekuri communities in Akamkpa Local Government Area of Cross River State. *Journal of Public Administration and Governance*, 3 (2), 219-225.
- Poortinga, W., Steg, L. & Vlek, C. (2009). Values, Environmental Concern, and Environmental Behaviour: A Study into Household Energy Use. *Environment and Behaviour*, 36 (1), 70-93.
- Richins, M. L. & Dawson, S. (2012). A Consumer Values Orientation for Materialism and Its Measurements. *Journal of Consumer Research*, 19, 303-316.
- Rohan, M. J. (2000). A rose by any name? The values construct. *Personality and Social Psychology Review*, 4, 255-277.
- Rokeach, M. (1973). The nature of human values. New York, NY: Free Press.
- Schwartz, S. H. & Bilsky, W. (2010). Toward a theory of the universal content and structure of values: extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, 58, 878-891.
- Steg, L., Lindenberg, S. & Keizer, K. (2015). Intrinsic Motivation, Norms and Environmental Behaviour: The Dynamics of Overarching Goals. *International Review of Environmental and Resource Economics*, 9, 179-207.
- Stern, P. C. (2010). Toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56, 407-424.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A Value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6, 81-95.
- Strizhakova, Y. & R.A. Coulter. (2013). The "Green" Side of Materialism in Emerging BRIC and Developed Markets: The Moderating Role of Global Cultural Identity. *International Journal of Research in Marketing*, 30, 69-82.
- Sütterlin, B., Brunner, T. A. & Siegrist, M. (2011). Who puts the most energy into energy conservation? A segmentation of energy consumers based on energy-related behavioural characteristics. *Energy Policy*, 39(2), 8137-8152.
- UNEP. (2010). *Assessing the Environmental Impacts of Consumption and Production: Priority Products and Materials, a Report of the Working Group on the Environmental Impacts of Products and Materials to the International Panel for Sustainable Resource Management.*
- Vaske, J. J., Donnelly M. P, Williams, D. R. & Jonker, S. (2011). Demographic Influences on Environmental Value Orientation and Normative Beliefs about National Forest Management. *Society and Natural Resources*, 14, 761-776.