



## AN EMPIRICAL ASSESSMENT OF PERCEIVED SUSTAINABLE DEVELOPMENT VALUES AMONG WORKERS IN DELTA STATE, NIGERIA

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### ABSTRACT

*This study assessed how much sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived in work setting, and whether difference exists in the number of employees that perceived the presence or absence of the values. The research design was correlational and data were collected with standardized scales that were presented in questionnaire form. Two hundred and one participants drawn from service organizations in Delta State, Nigeria provided the data. The sample comprises 60% males and 40% females; 70% were married and 30% were unmarried. Their age mean was 37 years (SD 10.63). Data analysis revealed significant difference in the number of employees that perceived presence and those that perceived absence of sustainable development value of solidarity, ( $\chi^2 = 52.78$ ,  $df = 1$ ,  $< 0.05$ ), respect for nature ( $\chi^2 = 119.15$ ,  $df = 1$ ,  $< 0.05$ ), tolerance, ( $\chi^2 = 18.21$ ,  $df = 1$ ,  $< 0.05$ ) equality. ( $\chi^2 = 19.74$ ,  $df = 1$ ,  $< 0.05$ ), and shared responsibility, ( $\chi^2 = 39.4$ ,  $df = 1$ ,  $< 0.05$ ). It was concluded that most of the participants perceived the presence of sustainable development values in their organizations. Further studies should examine the values in other settings, such as homes.*

*Key words: sustainable development, solidarity, tolerance, respect for nature, equality, shared responsibility values, Nigeria*

### INTRODUCTION

Global awareness of the deplorable present, its catastrophic implications for the future and the need for collective intervention were adequately captured in the concept of sustainable development. The conception was originally defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). In response to the components of the concept, there has been intense debate on what to be sustained and on what to be developed. However, Board on Sustainable Development of the U.S. National Academy of Science's (1999) extensive review of sustainable development literature identified nature, life support systems and community as what is to be sustained, while people, economy and society as what is to be developed. Sustainable development requires linking what should be sustained to what should be developed with a focus on the future. And it is a call for the present generation to maximize its existence and be mindful of the welfare of the future generations in their conduct, particularly in the exploration of the nature resources.

As often the case with social concepts, sustainable development has received remarkable scholastic scrutiny, and among the varied outcomes of that exercise is multiple, although related definitions. In the midst of the multitude of definitions, a visible issue of consensus is that sustainable development is of three dimensions - environment, economic and social. According to Harris (2000) economically sustainable system must be able to produce goods and services

on a continuing basis, maintain manageable levels of government and external debt, and avoid extreme sectorial imbalances. Environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. Socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability.

Sustainable development is about both intra-generational and intergenerational equity. Intra-generational equity expresses equity among those who are living today, while intergenerational equity refers to equity between the past, the present and future generations. Weiss (1992) theory of inter-generational equity partly account for sustainable development. The theory states that all generations have an equal place in relation to the natural system, and that there is no basis for preferring past, present or future generations in relation to the system. In other words, while the present generation is expected to inherit undamaged environment from the past generations, the present generation is expected to preserve the environment for the future generations. Intergenerational equity required that each generation conserves options, maintains the quality of the planet so that it is passed on in a condition not worse than it was received, and each generation provides its members with equitable rights of access to the legacy of past generations and conserve this access for future generations (Birnie & Boyle, 2002; Weiss, 1992).

Sustainable development is goal oriented. United Nation (2014, as cited in Pisano, Lange, Berger & Hametner, 2015) adopted several sustainable development goals that include eradication of poverty, ensuring healthy lives, ensuring inclusive and equitable quality education, achieving gender equality and promoting sustainable economic growth. Attainment of these goals requires largely that the present generation support and take up sustainable development values. Sustainability values are often expressed through specific attitudes and behaviors. In the extant literature (e.g. Kates, Parris & Leiserowitz, 2005) six core values (freedom, solidarity, equality, tolerance, respect for nature, and shared responsibility) were widely identified to underlie sustainable development. The value of freedom demands that men and women have the right to live their lives and raise their children in dignity, free from hunger and from the fear of violence, oppression or injustice. The value of solidarity requires that global challenges are managed in a way that distributes the costs and burdens fairly in accordance with basic principles of equity and social justice. The value of equality demands that no individual or nations be denied the opportunity to benefit from development. The value of tolerance demands that human beings respect each another, in all their diversity of belief, culture and language. The value of respect for nature demands prudence in the management of all living species and natural resources, in accordance with the precepts of sustainable development. The value of shared responsibility demands that responsibility for managing worldwide economic and social development, as well as threats to international peace and security, be shared among the nations of the world and should be exercised multilaterally.

### **Statement of the Problem**

Several settings, such as home, leisure and workplace offer opportunity for people to experience and exhibits sustainable development values. In work setting, a number of variables share similar characteristics with sustainable development values. However, there is dearth of study that examined these variables from the perspective of sustainable development values. Therefore, this study proposes that some organizational variables could be used to assess sustainable development values. Using five organizational variables, this study assessed how much sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived in work setting, with a rider on whether difference exists in the number of employees that perceived the presence or absence of these values. Understanding sustainable development values in work setting is of necessity as large percentage of people now spend much time and interact heavily in that setting.

Values represent basic convictions that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence (Rokeach, 1973). The various forms of sustainable development values have expression in a number of organizational variables. For this study, the adopted organizational variables are employee solidarity (solidarity value), organizational citizenship behavior for the environment (OCBE) (respect for nature value), employee tolerance for disagreement (tolerance value) sustainable organizational practices (social dimension; equality value), and employee participation in decision making (shared responsibility value). Organizational solidarity refers to employee behaving agreeably with others employees even when it is not convenient or formally prescribed (Cramm, Strating, & Nieboer, 2013). Employee solidarity has many different facets, one of which is reflected by organizational citizenship behavior (OCB), which refers to employee's behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes effective functioning of the organization (Organ, 1988). A number of researchers have examined how demographic factors relate with OCB. For instance, Uzonwanne (2014) studied demographic factors (gender, education and marital status) and OCB and observed that none of the variables predicted OCB. Bahrami, Montazeralfaraj, Gazar, and Tafti, (2013) examined demographic factors and OCB and found that gender and profession have significant relationship with employees' OCB, while age, education, marital status and professional experience have no significant relationship with the perception of OCB. Mahnaz1, Mehdi, Jafar, and Abbolghasem (2013) examined the effect of demographic characteristics (sex, academic qualification, types of profession, marital status, level of salaries and wages, ethnicity, job position, duration of employment/job experience, type of employment and department/office) on OCB and reported that all the demographic characteristics, except ethnicity had significant effect on OCB.

Organizational citizenship behavior for the environment (OCBE) refers to individual discretionary social behavior that are not explicitly recognized by the formal reward system and that contributes to a more effective environmental management by organizations (Boiral & Paille, 2012). The concern for the relationship between demographic variables and OCBE abound in the literature. For instance, Ibok and George (2014) studied socio-economic and demographic determinants of green consumption and reported among others that age, household income, home ownership, work status, buying pattern, education and residence significantly influence consumers social responsibility behaviour. Gupta (2013) examined the influence of demographic profile on green purchase intention of consumers and concluded that respondents with highest qualification such as higher secondary and those between the age of 35-44 years are more intended to purchase green product, and that gender does not influence green purchase intention. Laroche, Bergeron and Barbaro-Forleo, (2001) investigated demographic, psychological and behavioural profiles of consumers who are willing to pay more for environmentally friendly products *and found that these segment of consumer were more likely to be females, married and with at least one child living at home.* Rawat (2015) examined impact of age and income over green buying behaviour and observed that the variables impact green buying behaviour. Lindqvist (2010) studied green segmentation and behavior among students and observed that demographic factors of gender and the degree programme of the students were not determinants of green purchasing behavior patterns. Majumdar (2015) studied demographic factors (gender, income level, occupation, age, education and number of members in the household) among others that influence consumer preferences for green cosmetic and food products and reported that of out of the six variables only income level of the consumers has significant impact on preference for green cosmetic products

Inequality in organizations refers to systematic disparities between participants in power and control over goals, resources, and outcomes; workplace decisions such as how to organize work; opportunities for promotion and interesting work; security in employment and benefits; pay and other monetary rewards; respect; and pleasures in work and work relations (Acker, 2006). In

work setting inequality could be in form of demographic or economic. Demographic inequality describes disparities in experiences or outcomes that have a basis in demographic characteristics (e.g., gender; race; age), while economic inequality describes disparity that is a consequence of the monetary value attached to the possessions and contributions of individuals in organizations and societies (Bapuji1, & Mishra, 2015). Some researchers (such as Bibbs & Form, 1977; Cockburn, 1988; Reskin & Roos, 1990; as cited in Martin, 2016) have reported that labour markets, jobs, occupations, organizational hierarchies, work groups, work activities, technology uses, supervisory practices and procedures for promotion, hiring and advancement are gendered. Gender inequality research has identified significantly lower representation of women in various fields (ranging from science to politics), disparities in incomes between women and men for comparable work, and “glass ceiling” that prevents women from rising to higher-level positions (Bapuji,& Mishra, 2015).

Tolerance for disagreement is the amount of disagreement an individual can tolerate before he or she perceives the existence of conflict in a relationship (McCroskey & Richmond, 1996, as cited in O’Gallagher, 2015). Chzhen (2013) analyses the effects of individual educational attainment on tolerance for diversity, political engagement and understanding of democracy for a diverse sample of 30 upper middle, lower middle and lower income countries from six world regions and observed that more highly educated citizens are significantly more tolerant of out-groups. Seligson and Corral, (2011) examined the relationship between demographic variable and political tolerance in 10 counties in Latin America and observed that education, income (the wealthier the more tolerant) and gender (males more tolerant than females) significant predictor tolerance in the ten countries. Hoette (2012) studied socio-demographic variables on political tolerance levels in Netherland and observed that the socio-demographic variables of age, social class, education, city size and religion were of significant influence on political tolerance levels, while, income and gender had no significant effect. Other researchers (such as Andersen & Fetner, 2008; Bobo & Licari, 1989, Inglehart & Norris 2003; Ohlander, Batalova, & Treas, 2005; as cited in Chzhen, 2013) have observed that the effect of education on tolerance is moderate, the predictive power of education on tolerance is generally weak, religious affiliation and religiousness (church attendance) consistently associates with (political) intolerance, women were more (politically) intolerant than men, women were different from men in their choice of intolerance targets, there are gender differences in motives to tolerate various practices, tolerance was positively associated with education, and a significant positive effects of education on tolerance of homosexuality.

Employee participative decision-making (PDM) is concerned with shared decision making in the work situation. It is a process which allows employees to exert some influence over their work and the conditions under which they work; the distribution of power between employer and employee in decision making processes, either through direct or indirect involvement, and it encourages the involvement of manpower at all levels of an organization to analyze problems, develop new strategies, and implements solutions (Beardwell &Claydon, 2007; Helms, 2006; Strauss, 1998 as cited in Shaed , Ishak, & Ramli, 2015). Shaed, Ishak, and Ramli (2015) reviewed 32 articles published between 2010-2014 and 24 variables on the relationship between participation in decision making (PDM) and observed that gender, educational level among others positively correlate with participation in decision making. Jemilohun, Ekanem, and Adebara, (2015) assessed employee participation in organization decision making and reported that level of participation of employees in the decision making process was low and that gender and level of education had significant effects on employee relevance in the decision making process, while the effects of age, grade of staff and employee work division, showed insignificant effects. Ahmed and Safadi (2013) examined decisional involvement among nurses in both government and private hospitals and observed no correlation among age, gender, educational level, years of experience and actual decisional involvement.



A few remarks could be made on the literature review above. First, the review is limited to conceptualization of the five sustainable development values and the relationship between socio-demographic variables and the values. This is appropriate as it adequately represents the scope of this study. Second, almost all the studies on tolerance discussed in the review were on political tolerance. Although political relationship represents a viable platform for understanding tolerance for disagreement, but other platform such as family also exist. Third, the organizational variables examined in this study served as proxies for the sustainable development values of interest. Clearly, the organizational variables served appropriately for the values, but they do not exhaust the values. Fourth, findings on the relationship between socio-demographic variables and the values are visibly contradictory and inconsistent. However, the contradictory results could be rooted in methodological issues. For instance, Jemilohun, Ekanem and Adebara's (2015) sample size was one 100 participants and Ahmed and Safadi's (2013) sample size was 130 participants. For t-test and chi-square test used in the studies, these samples sizes have low power to detect significant difference at .05 level if the difference between the variables is of small effect size (Dewberry 2004). Finally, almost all the studies are foreign to the present research location.

### **Research objectives**

- 1 To ascertain how much sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived among workers in Delta State, Nigeria.,
- 2 To ascertain how gender influences perceived presence or absence of sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived among workers in Delta State, Nigeria.,
- 3 To ascertain how marital statues influences perceived presence or absence of sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived among workers in Delta State, Nigeria.,
- 4 To ascertain whether there is a significant difference in the number of employees that perceived the presence or absence of sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived among workers in Delta State, Nigeria.,

### **Hypotheses**

- 1 There will be significant difference in the number of employees who perceived presence or absence of sustainable development value of solidarity.
- 2 There will be significant difference in the number of employees who perceived presence or absence of sustainable development value of respect for nature.
- 3 There will be significant difference in the number of employees who perceived presence or absence of sustainable development value of tolerance.
- 4 There will be significant difference in the number of employees who perceived presence or absence of sustainable development value of equality.
- 5 There will be significant difference in the number of employees who perceived presence or absence of sustainable development value of shared responsibility.

## **METHOD**

### **Participants**

Two hundred and one participants drawn from service organizations in Asaba, Delta State, Nigeria provided the data analyzed. Asaba, as a state capital has enough workforce to provide same size for this study. The adopted sample size is satisfactory as it is in congruent with



Dewberry's (2004) recommendation that when the effect size expected is unknown, the sample size required for a medium effect size should be adopted. And for 2x2 chi-square, the sample size for medium effect is ninety. So, a sample size of 201 for one-sample/variable chi-square is adequate. The sample size was also satisfactory as every case examined has more than five expected frequency. The sample consists of 120 (60%) males and 81 (40%) females, 140 (70%) married, and 61 (30%) unmarried. Their age mean was 37.30 years (SD 10.63; range 43 years). All the participant, except 7 % were drawn from public sector organizations and all have had formal education with the majority holding first degree or its equivalents. The participants cut across both junior and senior members of staff.

### **Instrument**

As with attitudes, values cannot be measured directly. The value people hold can only be inferred from what they say or what they do. Therefore, self-report questionnaire was adopted to assess the five sustainable development values expressed in organizational variables. Solidarity value was measured with [Cramm, Strating](#) and [Nieboer's](#) (2013) 10-item scale on employee solidarity. It is a one-dimensional scale that was based on [Landenberg's](#) theory of solidarity. The authors reported Cronbach's alpha of 0.79. Sample item reads "In the organization where I work everyone helps when something needs to be done". Respect for nature value was measured with [Boiral](#) and [Paille's](#) (2012) 10-items scale on organizational citizenship behavior for the environment. The scale has three dimensions (eco-initiative, 3 items; eco-civic engagement, 4 items and eco-helping, 3 items). Sample item reads "I encourage my colleague to adopt more environmentally conscious behavior". The author reported Cronbach's alpha that ranged between 0.81 and 0.92. Tolerance value was measured with [Teven, McCroskey](#) and [Richmond's](#) (1998) 20-item scale on tolerance for disagreement. However, as recommended by the authors, 15 items were adapted in this study. The scale measures the degree to which an individual can tolerate other people disagreeing with what the individual believes to be true. On development, the scale had .86 Cronbach alpha reliability. Sample item reads "In my workplace it is more fun to be involved in a discussion where there is a lot of disagreement". Equality value was measured with 2 item adapted from [Torbjornson, Molin](#), and [Karlberg's](#) (2011) scale on sustainable development and three items from [Vickers, Wirtenberg, Harmon, Lindberg, Lee, Dennis](#), and [Russell's](#) (2007) organizational sustainable practices scale. Items adopted from [Vickers, et al](#) scale were on social dimension of sustainable development. Sample item reads "Large wage difference are good because they motivate people to work harder". Shared responsibility value was measured with [Muindi's](#) (2011) 18-item scale on workers participation in decision making. Sample item reads "the decisions in my department are made through consultation with members of the department". Likert's method of summated rating scale (4-strongly agree, 3 agree, 2-disagree, and 1-strongly disagree; interval data) was adopted. However, for the inferential analyses (chi-square) data were collapsed to nominal level. The interval level data enables detail presentation of the descriptive statistics, while the nominal data enables the grouping of the participants into those that perceived presence and those that perceived absence of the sustainable development values. Cronbach's alpha reliability coefficient of .65 was observed for solidarity value, .64 for respect for nature value, .81 for tolerance value, .91 for equality value and .80 for shared responsibility value were obtained in the present study. For all the scales, items were worded to tape participant's attitudes towards the values. To urge participants to respond as honesty as possible the assurance of anonymity, confidentiality and the phrase "there is no right or wrong answer" were included in the covering letter attached to the questionnaire

### **Procedure**

Approval was obtained from the managements of the various organizations sampled and the research questionnaires were distributed to the participants at their work places with the assistance of a few administrative staff of the organizations. Non-random sampling technique

(convenience sampling) was adopted in the distribution of the questionnaires. In all, 222 questionnaires were distributed and within an interval of three weeks 215 filled questionnaires were received. However, after sorting out the questionnaires that were not appropriately filled, 201 questionnaires (participants) were available for data analysis. This is 97% and 91% return and usable rate respectively.

### Design and Statistics

The research design was correlational as it is not experimental, and cross sectional as data were collected at one point in time. Descriptive statistics (percentage, bar charts and Pearson  $r$ ) and inferential statistics (one-sample chi-square) were adopted for data analysis. The design adopted was appropriate as the phenomenon under observation had occurred with no opportunity for the researcher to manipulate it. The statistics adopted was also appropriate as each hypothesis is on a single variable. Result from one-sample chi-square can be discussed in terms of difference (Dewberry, 2004; Ntoumanis, 2001; Runyon & Haber, 1991), and the approach was adopted in this study.

### RESULTS

On a 6-point scale, the mean scores for sustainable development value of solidarity was 3.82 (SD .05), respect for nature was 4.13 (SD .053), tolerance was 3.21 (SD .06), equality was 3.75 (SD .06) and shared responsibility was 4.03 (SD .16). And Pearson correlation (Table 1) revealed positive relationship between the sustainable development values.

Table 1: Correlation Matrix on the Five Sustainable Development Values.

	Solidarity	Respect for Nature	Tolerance	Equality
Solidarity		.	.	
Respect for Nature	.44*			
Tolerance	.26*	.19*		
Equality	.23*	.25*	.39*	
Shared Responsibility	.11	.09	.148*	.09

Correlation significant at the 0.05 level (two-tailed)

Statistics in figure 1 below revealed that 71% (strongly agree, 14% plus agree, 57%) of the employees perceived the presence of sustainable development value of solidarity, 82% (strongly agree, 26 plus agree, 56%) of the employees perceived the presence of sustainable development value of respect for nature, 35% (strongly agree, 8% plus agree 27%) of the employees perceived the presence of sustainable development value of tolerance, 67% (strongly agree, 27% plus agree, 40%) of the employees perceived the presence of sustainable development value of equality, and 68% (strongly agree 20 plus agree 48%) of the employees perceived the presence of sustainable development value of shared responsibility in work setting.

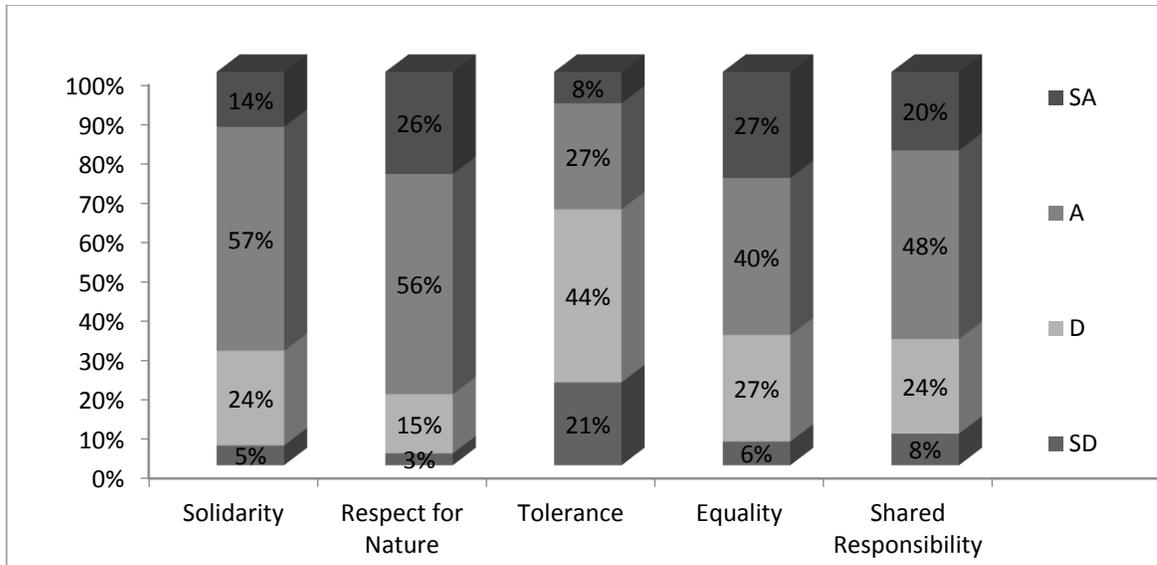


Figure 1: Bar Chart On Percentage of Employees Who Strongly Agree (SA), Agree (A), Disagree (D) or Strongly Disagree (SD) With the Statements That the Sustainable Development Values Are Present in Work Setting.

Statistics in figure 2 shows that the majority of male employees perceived presence of sustainable development value of solidarity (strongly agree, 18% plus agree 56%), respect for nature (strongly agree, 28% plus agree 54%), equality (strongly agree, 21% plus agree 44%), and shared responsibility (strongly agree, 11% plus agree 61%), while the majority of male participants perceived absence of sustainable development value of tolerance (strongly disagree, 19% plus disagree 41%) in their organizations.

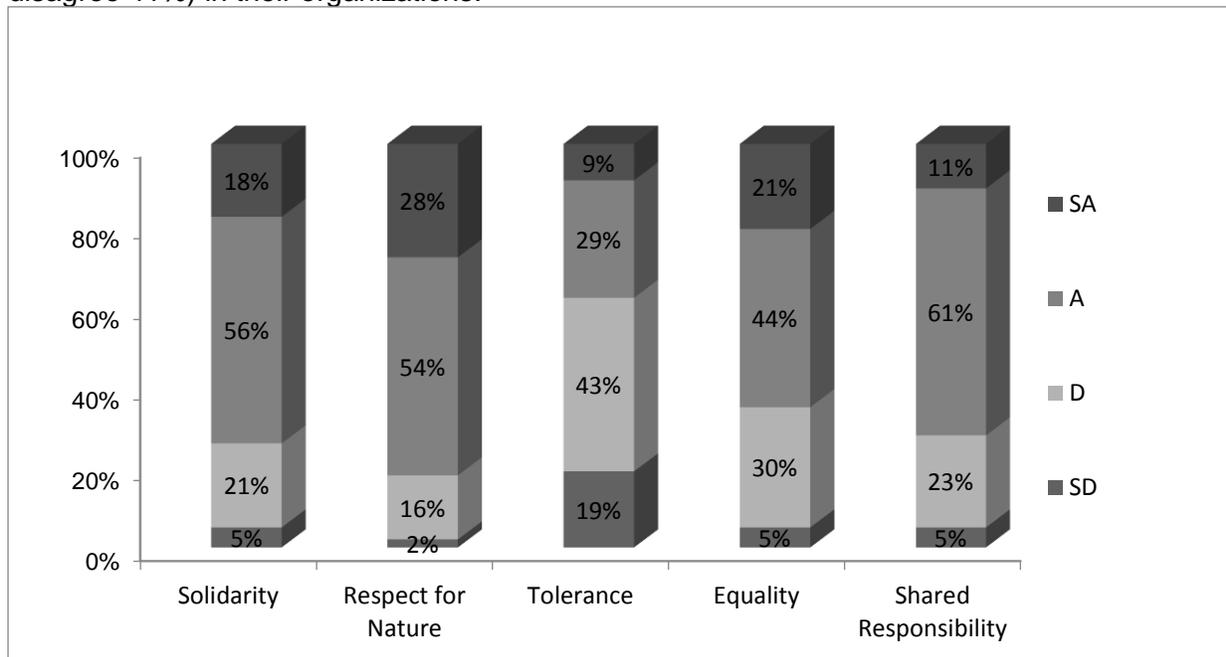


Figure 2: Bar Chart on Percentage of Male Employees Who Strongly Agree (SA), Agree (A), Disagree (D) or Strongly Disagree (SA) With the Statements That the Sustainable Development Values Are Present in Work Setting.

Statistics in figure 3 shows that the majority of female employees perceived presence of sustainable development value of solidarity (strongly agree, 19% plus agree 44%) respect for

nature (strongly agree, 25% plus agree 61%), equality (strongly agree, 30% plus agree 40%), and shared responsibility (strongly agree, 20% plus agree 43%), while the majority of female employees perceived absence of sustainable development value of tolerance (strongly disagree, 22% plus disagree 35%) in work setting. The statistics in Figures 2 and 3 indicate that 74%, 82%, 38%, 65%, and 72% of male employees perceived presence of sustainable development value of solidarity, respect for nature, tolerance, equality, and shared responsibility in work setting, while 63%, 86%, 43%, 70%, and 63% of female employees perceived presence of sustainable development value of solidarity, respect for nature, tolerance, equality, and shared responsibility respectively in work setting.

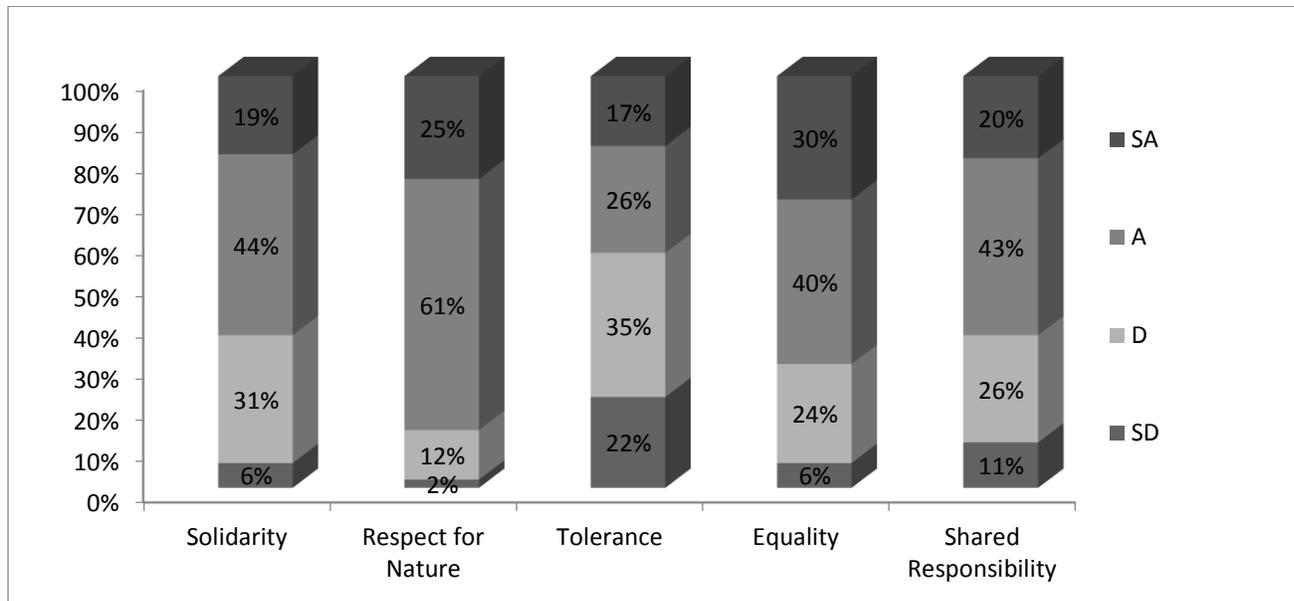


Figure 3: Bar Chart on Percentage of female Employees Who Strongly Agree (SA), Agree (A), Disagree (D) or Strongly Disagree (SD) With the Statements that the Sustainable Development Values Are Present in Work Setting.

Statistics in figure 4 shows that the majority of married employees perceived presence of sustainable development value of solidarity (strongly agree, 13% plus agree 45%) respect for nature (strongly agree, 22% plus agree 60%), equality (strongly agree, 20% plus agree 47%), and shared responsibility (strongly agree, 15% plus agree 49%), while the majority of married employees perceived absence of sustainable development value of tolerance (strongly disagree, 21% plus disagree 43%) in work setting.

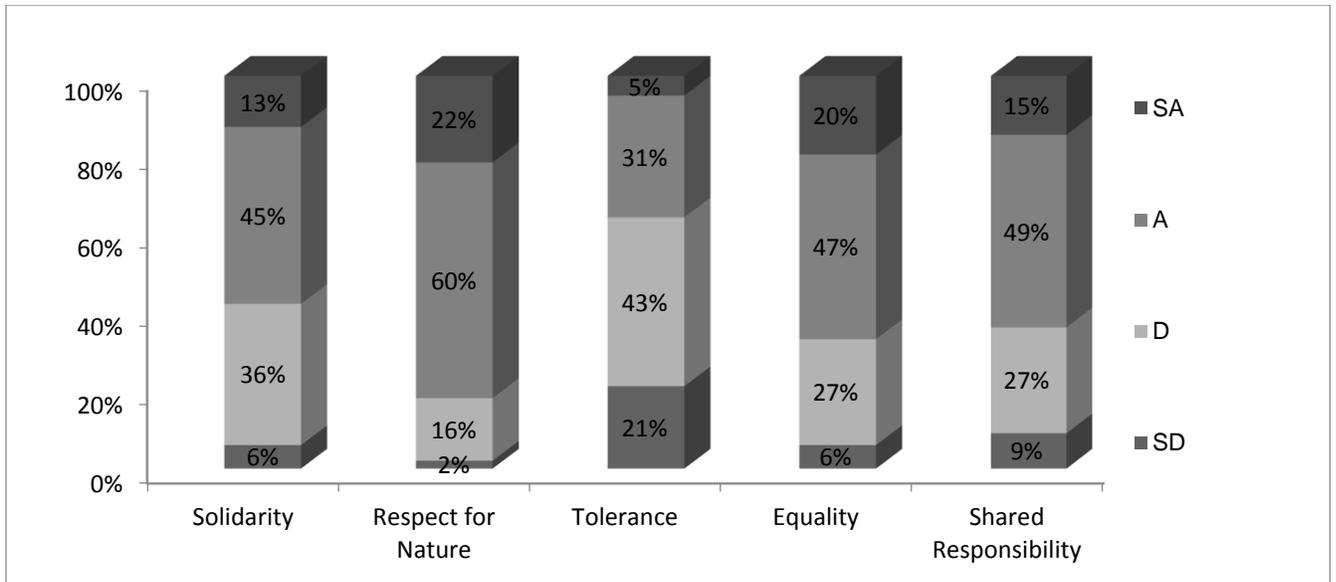


Figure 4: Bar Chart on Percentage of Married Employees Who Strongly Agree (SA), Agree (A), Disagree (D) Or Strongly Disagree (SD) With the Statements That the Sustainable Development Values Are Present in Work Setting.

Statistics in figure 5 shows that the majority of unmarried employees perceived presence of sustainable development value of solidarity (strongly agree, 18% plus agree 52%) respect for nature (strongly agree, 28% plus agree 54%), equality (strongly agree, 20% plus agree 41%), and shared responsibility (strongly agree, 23% plus agree 53%), while the majority of unmarried employees perceived absence of sustainable development value of tolerance (strongly disagree, 13% plus disagree 39%) in work setting. Statistics on Figures 4 and 5 indicated that 58%, 82%, 36%, 67%, and 64% of married employees perceived presence of sustainable development value of solidarity, respect for nature, tolerance, equality, and shared responsibility, while 70%, 82%, 48%, 65% and 76%, of unmarried employees perceived presence of sustainable development value of solidarity, respect for nature, tolerance, equality, and shared responsibility respectively in work setting

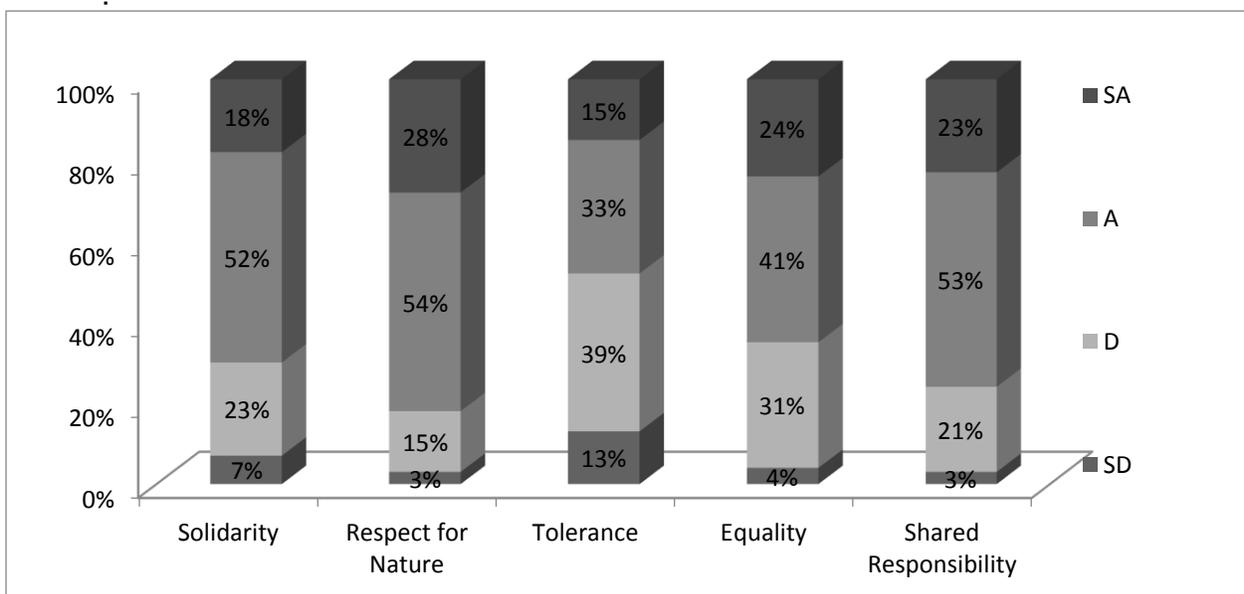


Figure 5: Bar Chart on Percentage of Unmarried Employees Who Strongly Agree, Agree, Disagree or Strongly Disagree with the Statements That the Sustainable Development Values Are Present in Work Setting.

Chi-square of goodness of fit test on responses to the variables revealed significant difference in the number of employees that perceived presence or absence of sustainable development value of solidarity, ( $\chi^2 = 52.78, df = 1, < 0.05$ ), respect for nature ( $\chi^2 = 119.15, df = 1, < 0.05$ ), tolerance, ( $\chi^2 = 18.21, df = 1, < 0.05$ ), equality. ( $\chi^2 = 19.74, df = 1, < 0.05$ ), and shared responsibility, ( $\chi^2 = 39.4, df = 1, < 0.05$ ). These statistics indicates that for the five hypotheses tested in this study each response category was not equally preferred. There was a significant preference for “strongly agree” and “agree” response categories combined for hypotheses 1, 2, 4, and 5 and significant preference for “strongly disagree” and “disagree” response categories combined for hypothesis 3. Therefore, all the hypotheses were accepted. These results were presented in Table 2 below. In line with data collection pattern and consequently data outcome, “strongly agree” and “agree” response categories indicate presence of the sustainable development values, while “strongly disagree” and “disagree” response categories indicate absence of the sustainable development values.

**Table 2:** Difference in Number of the Employee That Perceived Presence or Absence of the Sustainable Development Values

<b>Solidarity</b>	<b>Observed N</b>	<b>Expected N</b>	<b><math>\chi^2</math></b>	<b>df</b>	<b>P</b>
Presence	152	100.5	52.78	1	< 0.05
Absence	49	100.5			
<b>Respect for nature</b>					
Presence	178	100.5	119.15	1	< 0.05
Absence	23	100.5			
<b>Tolerance</b>					
Presence	70	100.5	18.21	1	< 0.05
Absence	131	100.5			
<b>Equality</b>					
Presence	132	100.5	19.74	1	< 0.05
Absence	69	100.5			
<b>Shared Responsibility</b>					
Presence	145	100.5	39.4	1	< 0.05
Absence	66	100.5			

**DISCUSSION**

This study assessed how much sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility are perceived in work setting, and whether difference



exists in the number of employees that perceived the presence or absence of the values. The employees mean scores on all the sustainable development values were moderately high. This indicates that on the whole there was a favourable perception for the sustainable development values. However, Sustainable development value of respect for nature was reported as the most expressed sustainable development value, while sustainable development value of tolerance was reported as the least expressed in work setting. There was also positive relationship between all the values. Although, while every other relationship was significant at .05 level, the relationship between sustainable development value of shared responsibility with others were not significant at that level.

Male employees reported sustainable development value of solidarity as the most expressed, while sustainable development value of tolerance was reported as the least expressed in work setting. Female employees reported sustainable development value of respect for nature as the most expressed, while sustainable development value of tolerance was reported as the least expressed in work setting. Married employees reported sustainable development value of respect for nature as the most expressed, while sustainable development value of tolerance was reported as the least expressed in work setting. Similarly, unmarried employees reported sustainable development value of respect for nature as the most expressed, while sustainable development value of tolerance was reported as the least expressed in work setting. For both male and female employees, married and unmarried employees, tolerance value was reported as the least expressed in work setting, while all the groups except males reported sustainable development value of respect for nature as the most expressed in work setting.

More male than female employees reported presence of sustainable development value of solidarity, and shared responsibility, while more female than male employees reported presence of sustainable development value of respect for nature, tolerance and equality in work setting. More married employees than unmarried employees reported presence of sustainable development value of equality, while more unmarried employees than married employees reported presence of sustainable development values of solidarity, tolerance and shared responsibility. The same percentage of married and unmarried employees reported presence of sustainable development value of respect for nature. That the employees perceived moderate degree of sustainable development values could be that for employees to remain members of any formal organization these values were likely to be present at moderate and acceptable level.

The five null hypotheses tested were accepted by the data analysis. There was significant difference in the number of employees that perceived presence or absence of sustainable development values of solidarity, respect for nature, tolerance, equality and shared responsibility. For hypotheses 1, 2, 4, and 5 (solidarity, respect for nature, equality, and shared responsibility values respectively) the difference was in favour of perceived presence, while for hypothesis 3 (tolerance value) the difference was in favour of perceived absence. For all the values, except for tolerance value the majority of the employee perceived their presence. That the majority of employee perceived absence of sustainable development value of tolerance could be explained with the fact that among the values, the observed mean score for sustainable development value of tolerance was the lowest. This means that sustainable development value of tolerance is the least noticeable. Therefore, as the presence of the value is not very perceptible many employees would not perceive it. This is what reflect in the result where significant number the employees reported absence of the value in work setting.

On the bases of the findings, the following conclusions were made. First, the degree of sustainable development value of solidarity, respect for nature, equality, shared responsibility is high, while the degree of sustainable development value of tolerance is low in work setting. Second, the majority of the employees perceived presence of sustainable development value of solidarity, respect for nature, equality and shared responsibility, while the majority of the employees perceived absence of sustainable development value of tolerance in work setting. Third, male employees are more likely to perceived presence of sustainable development value



of solidarity and shared responsibility, while female employees are more likely to perceived presence of sustainable development value of respect for nature, tolerance and equality in work setting. Fourth, married employees are more likely to perceived presence of sustainable development value of equality, while unmarried employees are more likely to perceived presence of sustainable development value of solidarity, tolerance, and shared responsibility in work setting. Fifth, the number of employees that perceived the presence or absence of sustainable development value of solidarity, respect for nature, tolerance, equality and shared responsibility in work setting was significantly different. Male employees are more likely to perceived presence of sustainable development value of solidarity and shared responsibility, while female employees are more likely to perceived presence of sustainable development values of respect for nature, tolerance and equality in work setting. And finally, seven out of the ten relationships between the values were positive and significant at .05 level, therefore, it could be concluded that sustainable development could be achieved by concentrating effort in a few of the values. On the whole, the degree sustainable development values are perceived to be present in work setting is high and the percentage of employees who perceived the presence of the various sustainable development values is encouraging, but there is still need for organizational policies that would enhance the present level and percentage respectively

This is a pioneer study on sustainable development values in work setting; therefore, it is recommended that more studies on the issue be conducted. More studies and consequently more findings would provide generalizable information on the variables of interest. This study did not exhaust sustainable development values, so future studies should be comprehensive. Future studies should also examine sustainable development values in home setting. A possible limitation of this study is method variance (common source variance and social desirability bias). This is anticipated as all the variables were presented to the respondents on a self-report questionnaire with no "lie scale"

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