

## Investigating issues confronting women participation in the building construction industry in Ondo state, Nigeria

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**Abstract** - This study examined the issues confronting women participation in the building construction industry in Nigeria. The nature of work in the construction sector requires physical exertions and it is accompanied with stress which often leads to physical and muscular pain. Also, the work environment at work site may not be so conducive as to consider the feminine nature of the woman. Four research questions guides the study and two research hypotheses was tested at 0.05 level of significance. The study adopts simple random sampling techniques in selecting the respondents so that each member of the population have chance of being represented in the sample. One hundred respondents were selected due to shortage of site available in Ondo State. The results revealed that building construction industry on women participation enable them build their confident in the work environment, increase their knowledge, encourage the development of career, reduces joblessness and encourage productivity. The study concluded that there is a discrimination and gender bias in the Ondo State building construction sector, and that some employers prefer to employ men for their construction projects, and the main reason behind was that, the state is predominantly a secular state and the majority of people has a unique culture, but in reality, male and female in terms of employment requirements and career development should have equal opportunity, the study recommends that the industry should improve the environmental factors in respect to women by introducing flexible work hours, reducing work load and making the work less tedious and stressful for women participation.

**Keywords:** participation, construction, industry, confronting, investigating

### 1. INTRODUCTION

The building construction industry is typically a male dominated industry and presents a major challenge for equal opportunities for women. The building sector of the construction industry has a particularly low participation rate for women, both in the industry and academia. Clarke, (2015) opined that the prevalent social conditions underpins the occupational segregation of the labour market into masculine and feminine jobs, is as imperforated today as it was at the beginning of the century, with construction as the prime example. The majority of women working in the building industry undertake administrative, technical and professional work while the intake at the operative level is very low and the data are scarce to non-existence, but in most countries, these represent less than 1% of the workforce. Inevitably, it can be concluded that building industry is male-dominated Clarke (2015).

Similarly, Aulin and Jingmond (2011) carried out a research and found out that the construction industry is still regarded largely as a male-dominated field, and entering this industry is a challenge for most women. The majority of women working in the construction industry perform administrative work, while the tasks at the operative level are largely performed by men. However, this does not dismiss the fact that there are women who are actively employed in all aspects of the industry. Even with an increased participation of women in this field, the general perception is that women veer towards other more traditionally female roles (Aulin & Jingmond, 2011).

The Building Profession offers a wide range of jobs and career paths for both women and men, although traditionally it has been a male domain. Jobs are available in all areas of the profession from trades, consultancy services, project management, teaching/lecturing and a host of other practices (Izam, 2010). The Building Profession is designed for men and women alike; each possessing relative strength and mental capacity with enthusiasm in their chosen area of expertise to execute a given task under the same umbrella. It is worth noting in Nigeria that women earn more in construction work than in other jobs traditionally considered their domain (Adeyemi, 2016). Implementing policies that remove labour market distortions and create a level playing field for all will give female graduates the opportunity to develop their potential and to participate in economic life more visibly.

The most prevailing gender issues in the construction industry ranges from discrimination, payment discrepancies, availability of jobs, harassment and a host of other issues (Fielden, 2019). Contrary, there have been few studies focusing on factors influencing women entry into construction and what their expectations are (Bennett, 2019). One study showed that many students choose the path without full knowledge about the industry and its culture.

The construction sector constitutes one fundamental sector contributing to the development of infrastructure in the economy. Apparently, the sector is male dominated while a few women employed occupy the casual informal employment status of the industry. The result is that the skilled positions are dominated by the men while the women occupy the unskilled part of the jobs. This situation has continually led to the discrimination of women in occupying managerial positions in the construction industry. The study seeks to conduct an investigation into the issue confronting women participation in the construction industry.

#### **Statement of the Problem**

The nature of work in the construction sector requires physical exertions and it is accompanied with stress which often leads to physical and muscular pain. Also, the work environment at work site may not be so conducive as to consider the feminine nature of the woman. Therefore, the assumptions are that are that the woman is physically not strong to be assigned with the nature of work on construction sites. However, in the informal employment status we see an increasing number of women taking up casual jobs in construction industry. The ability of women to function effectively under the type of behavioral conditions in the construction sector is equally doubtful.

However, despite the giant strides taken in this direction there still exist pockets of discrimination and issues against the female gender. Specified tools, equipment and clothing for construction work are not ideal for women thereby exposing them to reproductive health hazards. Moreover, there are discriminatory behavior exhibited against women which do not inspire them on the job, therefore, the problem of the study is to investigate issues confronting women participation in the construction industry in Ondo State, Nigeria.

The main purpose of the study is to investigate the issue confronting women participation in the building construction industry; Specifically, the study seeks to:

- (i) Determine the relevance of the building construction industry to women participation in Ondo State Nigeria.
- (ii) Find out the level of women participation in the building construction industry in Ondo State Nigeria.
- (iii) Find out the problem confronting women participation in the building construction industry in Ondo State Nigeria.

(iv) Find out possible solution to problem confronting women participation in the building construction industry in Ondo State Nigeria.

The following research questions guides the study:

- (i) What are the relevance of the building construction industry to women participation in Ondo State Nigeria?
- (ii) What are the levels of women participation in the building construction industry Ondo State in Nigeria?
- (iii) What are the problems confronting women participation in the building construction industry in Ondo State Nigeria?
- (iv) What are the possible solutions to problems confronting women participation in the building construction industry in Ondo State Nigeria?

The following research hypotheses was tested at 0.05 level of significance

H<sub>01</sub>: There is no significance difference between issues confronting women in building construction industry and their level of participation.

H<sub>02</sub>: There is no significance difference between women and men participation in building construction industry in Nigeria.

## 2. METHOD

The research design that was used in this study was a descriptive research design of the survey type. It describes existing phenomena without manipulation of variables. The population of this study consists of all building contractors in Ondo state. The total population of the study was about 700 building contractors. The study adopts simple random sampling techniques in selecting the respondents. One hundred respondents were selected from the total population. This consists of 30 females and 70 males from all the Local Government majorly from building sites and road construction sites. The total sample for this study is 100 respondents. The instruments used for this study was a self-designed structured questionnaire titled: The Issue confronting Women participation in the Building Construction Industry (ICWPBCI). It consists of two sections A and B. Section A is on the demographic data of the respondents while section B consists items that answers the research questions. The continuum was a 4-likert scale of Strongly Agree 4 Points, Agree 3 Points, Disagree 2 Points Strongly Disagree 1 Points, mean equal or above 2.50 is regarded as agree and mean below 2.50 is regarded as disagree.

The research instrument was validated by the three experts in the Department of Vocational and Technical Education Adekunle Ajasin University, Akungba Akoko. The reliability of the instruments was ensured through the test re-test method. The instruments were administered twice within an interval of two weeks to 30 respondents who were not part of the sample and reliability co-efficient of 0.76 was obtained. The questionnaire was distributed in person by the researcher with the help of five research assistants.

The data were analysed using frequency count, mean and standard deviation to answer the research questions while inferential statistics of ANOVA was used to test the hypothesis at 0.05 level of significance.

**Research Question One:** What are the relevance of the building construction industry to women participation in Nigeria?

Table 1 showing respondents response on the relevance of the building construction industry on women participation in Nigeria

| S<br>N | Question                                                   | RESPONSES |           |         |         |          |             | TOTAL        |
|--------|------------------------------------------------------------|-----------|-----------|---------|---------|----------|-------------|--------------|
|        |                                                            | SA        | A         | D       | SD      | MEA<br>N | STD.<br>DEV |              |
| 1.     | It will help women build her scale in the work environment | 67<br>67% | 33<br>33% | 2<br>2% | 8<br>8% | 3.06     | 1.160       | 100<br>100.0 |

|    |                                                   |           |           |           |           |      |       |              |
|----|---------------------------------------------------|-----------|-----------|-----------|-----------|------|-------|--------------|
| 2. | It increase women knowledge aside the secular job | 29<br>29% | 57<br>57% | 6<br>6%   | 8<br>8%   | 2.78 | 0.896 | 100<br>100.0 |
| 3. | It encourage to developing career                 | 57<br>57% | 19<br>19% | 12<br>12% | 12<br>12% | 2.86 | 0.714 | 100<br>100.0 |
| 4. | Reduces lack of job opportunity among women       | 18<br>18% | 48<br>48% | 21<br>21% | 13<br>13% | 2.81 | 0.757 | 100<br>100.0 |
| 5. | Encourage productivity among women                | 72<br>72% | 11<br>11% | 9<br>9%   | 8<br>8%   | 3.25 | 0.874 | 100<br>100.0 |

From the table above the result revealed that the relevance of the building construction industry on women participation in Nigeria, item 5 with the highest mean of 3.25 revealed that encouragement of productivity among women, follow by items 1 with mean 3.06 which suggest that women participation should help build her scale in the work environment, item 3 has mean of 2.86 to shows that it encourage to developing career and item 4 and 2 has mean of 2.81 and 2.78 respectively to shows that increase women knowledge aside the secular job and reduces lack of job opportunity among women. The result revealed that building construction industry on women participation enable them build their scale in the work environment, increase their knowledge encourage to developing career, reduces joblessness and encourage productivity.

**Research Question Two:** What are the levels of women participation in the building construction industry in Nigeria?

Table 2 showing respondents view on the level of women participation in the building construction industry in Nigeria

| S/N | Question                                                                               | RESPONSES |           |         |           |      |          | TOTAL        |
|-----|----------------------------------------------------------------------------------------|-----------|-----------|---------|-----------|------|----------|--------------|
|     |                                                                                        | SA        | A         | D       | SD        | MEAN | STD. DEV |              |
| 6   | The women are not always aware of the job opportunity in building construction         | 61<br>61% | 31<br>31% | 2<br>2% | 6<br>6%   | 3.43 | 0.901    | 100<br>100.0 |
| 7.  | Belief the work will not be working according                                          | 67<br>67% | 25<br>25% | 2<br>2% | 6<br>6%   | 3.22 | 1.055    | 100<br>100.0 |
| 8.  | Local job execution in the construction site always slowdown                           | 59<br>59% | 22<br>22% | 8<br>8% | 11<br>11% | 2.55 | 0.750    | 100<br>100.0 |
| 9.  | Helping women to choose a career in building construction                              | 65<br>65% | 30<br>30% | 2<br>2% | 3<br>3%   | 3.33 | 1.026    | 100<br>100.0 |
| 10  | Involving the Radio and Facebook to creation, include to women in active participation | 55<br>55% | 35<br>35% | 7<br>7% | 3<br>3%   | 2.69 | 1.089    | 100<br>100.0 |

Table three revealed that the levels of women participation in the building construction industry in Nigeria. Showing that women are not always aware of the job opportunity in building construction with mean of 3.43, followed by beliefs the work will not work according with 3.22 of the mean agreed which was accepted. local job execution in the construction site always slow down with the mean 3.33. Most of the respondents accepted that involving the radio and facebook creation to include to women in active participation with mean of 2.69 while mean of 2.55 which stated that helping women to choose a career in building construction. Result revealed that the level of women participation as low because of lack of women awareness in job opportunity in building Construction Company, there belief about the work, local job execution and low careers turnout in construction works.

**Research Question Three:** What are the problems confronting women participation in the building construction industry in Nigeria?

Table 3 showing Respondents response on the problems confronting women participation in the building construction industry in Nigeria

| S/N | Question                                                 | RESPONSES |           |           |           |      |          | TOTAL        |
|-----|----------------------------------------------------------|-----------|-----------|-----------|-----------|------|----------|--------------|
|     |                                                          | SA        | A         | D         | SD        | MEAN | STD. DEV |              |
| 11. | Male domination in the industry                          | 40<br>40% | 44<br>44% | 10<br>10% | 6<br>6%   | 3.12 | 0.694    | 100<br>100.0 |
| 12  | Low capacity of women in participation                   | 55<br>55% | 22<br>22% | 12<br>12% | 11<br>11% | 3.51 | 0.732    | 100<br>100.0 |
| 13  | Poor financial support of women in construction training | 61<br>61% | 27<br>27% | 7<br>7%   | 5<br>5%   | 3.45 | 0.880    | 100<br>100.0 |
| 14  | Lack of support from the family                          | 35<br>35% | 53<br>53% | 6<br>6%   | 6<br>6%   | 2.91 | 0.874    | 100<br>100.0 |
| 15. | Societal expectations about women being an housewives    | 43<br>43% | 34<br>34% | 12<br>12% | 11<br>11% | 3.31 | 0.653    | 100<br>100.0 |

Table two above revealed the problem confronting women participation in the building construction industry in Nigeria. Mean of 3.51 revealed that low capacity of women in participation in the building industry mean of 3.45 which agreed that poor financial support while mean of 3.31 response that societal expectation about women being an housewife and finally lack of support from the family with the mean of 2.91. The result show that low capacity, male domination in the industry, poor financial support, lack of support from the family and societal expectation about women being an housewife are the possible problem confronting women participation in the building construction industry in Nigeria.

**Research Question Four:** What are the possible solutions to problems confronting women participation in the building construction industry in Nigeria?

Table 4 showing Respondents response on the possible solutions to problem confronting women participation in the building construction industry

| S/N | Question                                                                          | RESPONSES |           |         |           |      |          | TOTAL        |
|-----|-----------------------------------------------------------------------------------|-----------|-----------|---------|-----------|------|----------|--------------|
|     |                                                                                   | SA        | A         | D       | SD        | MEAN | STD. DEV |              |
| 16. | Provision of financial support from family                                        | 59<br>59% | 26<br>26% | 5<br>5% | 10<br>10% | 3.22 | 1.061    | 100<br>100.0 |
| 17. | Orientation about the necessary skills in building construction                   | 58<br>58% | 31<br>31% | 4<br>4% | 7<br>7%   | 3.13 | 1.060    | 100<br>100.0 |
| 18. | Encouraging high turn out of women in building construction                       | 39<br>39% | 52<br>52% | 6<br>6% | 3<br>3%   | 3.05 | 0.805    | 100<br>100.0 |
| 19. | Creating local class to pre informed women about all about building constructions | 34<br>34% | 51<br>51% | 9<br>9% | 6<br>6%   | 3.09 | 0.665    | 100<br>100.0 |
| 20  | Helping women to taste the practical aspect of building construction              | 57<br>57% | 32<br>32% | 3<br>3% | 8<br>8%   | 2.19 | 0.699    | 100<br>100.0 |

Table four revealed the solutions to problems confronting women participation in the building construction industry in Nigeria. It revealed that provision of financial support from family with mean 3.22, orientation about the necessary skills in building construction with mean 3.13 and mean 3.09 for encouraging high turnout of women in building construction, also mean 3.05 shows that helping women to taste on the practical aspect of building construction with mean of 2.19. The result revealed provision of financial support from family, orientation on necessary skills

within the industry, encouraging high turnout of women in building construction, creating local class to pre informed women and helping women to taste on the practical aspect of building construction are possible solution to the problem women are encountered in participation in construction work in Nigeria.

**Hypotheses One:** There is no significance difference between issues confronting women in building construction industry and their level of participation.

Table 5 showing ANOVA table on significance difference between issues confronting women in building construction industry and their level of participation

| Model      | Sum of Sq | d.f | Mean Sq. | F-statistic | P-value |
|------------|-----------|-----|----------|-------------|---------|
| Regression | 2332.731  | 1   | 2332.731 | 12.741      | 0.000   |
| Residual   | 36252.557 | 99  | 183.094  |             |         |
| Total      | 38585.288 | 100 |          |             |         |

From table 5, Adjusted R<sup>2</sup> and F- statistics were used. The adjusted R<sup>2</sup> shows that the explanatory variables (Building construction industry) accounts for 6.0% of the variation in level of participation. However, the model as whole has statistically significant predictive power as shown by the F-cal value is 12.741, p-value is 0.00 such p-value is less than 0.05 significant, the hypotheses is therefore accepted. In understanding significance difference between issues confronting women in building construction industry and their level of participation, the hypothesis was accepted and the alternative hypothesis of there is significance difference between issues confronting women in building construction industry and their level of participation was rejected.

**Hypotheses Two:** There is no significance difference between women and men participation in building construction industry in Nigeria.

Table 6 showing ANOVA table on significance difference between women and men participation in building construction industry in Nigeria

| Model      | Sum of Sq | d.f | Mean Sq. | F-statistic | P-value |
|------------|-----------|-----|----------|-------------|---------|
| Regression | 55.318    | 2   | 55.318   | 12.741      | 0.05    |
| Residual   | 4321.657  | 98  | 162.094  |             |         |
| Total      | 4377.035  | 100 |          |             |         |

Regression analysis was used in testing this hypothesis with a significant level set at 0.05 as cut off point in determination of acceptance or rejection. Results showed a significant influence on Women participation (df = 3; R Square = 0.367;  $P < 0.05$ ) between Male participation in this study, indicating the strength of male participation of 12.741 on construction industry. The null hypothesis is hereby rejected and the alternative hypothesis of there is significance difference between women and men participation in building construction industry in Nigeria was accepted.

From research question one the study revealed that building construction industry on women participation enable them build their scale in the work environment, increase their knowledge encourage to developing career, reduces joblessness and encourage productivity. This is in line with International Labour Organization (2001) that construction industry is globally seen as one of the major contributors to the economic development of a nation. The industry is widely considered to be the world's largest industrial employer of labour, with estimation in excess of 111 million construction workers worldwide. This is also explained the research of National Population Commission (2012) recorded that Nigeria is estimated to have 167million people, with 49% of the active age group assumed to be women, and the National Bureau of Statistics (2006) revealed that about 70% of the women living in Nigeria are rural dwellers. However, it is presumed that if women are not highly empowered, better economic growth of the country is less assured. Gender in Nigeria Report of 2012 affirmed that an investment in

women and girls in Nigeria will increase productivity in this generation and will promote sustainable growth. Although awareness has been created in the country over the past few years that something should be done to empower women and enable them to fight poverty by generating revenues and resources to ensure the development of the country's economy, women involvement in construction is abysmally low.

The result from research question two show that low capacity, male domination in the industry, poor financial support, lack of support from the family and societal expectation about women being an housewife are the possible problem confronting women participation in the building construction industry in Nigeria. This is in line with the research of Fielden et al., (2011) within the number of studies detailing the position of women in building construction, the problems faced by women to enter and retain in the construction industry are considered as important. It is primarily the barriers which lead to a lower participation rate of women in construction. Therefore, it is vital to look into the problems faced by women entering into construction. There are several barriers on women entering and working in the construction industry. Also, females consider the equal opportunities record of the construction industry to be worse than males. The Construction Industry Training Board also found that 63% of young women interviewed felt that it would be practically impossible for women to get jobs in the construction industry and only 17% thought that it would be a suitable career for them. According to action research undertaken.

Research question three revealed that the level of women participation as low because of lack of women awareness in job opportunity in building Construction Company, there belief about the work, local job execution and low careers turnout in construction works. This collaborate with Bachelet (2011; see Thomas, 2016) stated that gender stereotyping is a major cause of occupational dichotomy, which has to be tackled holistically. Conventionally, women have not been employed in the built environment profession in any number to be considered. Therefore, research must be carried out to determine why women are not entering the built environment profession.

The result from research question four revealed provision of financial support from family, orientation on necessary skills within the industry, encouraging high turnout of women in building construction, creating local class to pre informed women and helping women to taste on the practical aspect of building construction are possible solution to the problem women are encountered in participation in construction work in Nigeria. This is in line with the research of Dainty (2010) found that women may not remain in the industry after education due to the incorrect picture of the industry portrayed by recent recruitment initiatives. Their research found that women are more likely to be attracted to the industry by such targeted recruitment campaigns, and they noted that women who had entered the industry due to such initiatives 'have a poor initial understanding of the culture of the industry and the inherent difficulties of working in such a male dominated environment.

The result revealed that building construction industry to women participation enable them build their scale in the work environment, increase their knowledge encourage to developing career, reduces joblessness and encourage productivity. Result revealed that research question two show that low capacity, male domination in the industry, poor financial support, lack of support from the family and societal expectation about women being a housewife are the level of women participation in the building construction industry in Nigeria.

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The result from research question four revealed provision of financial support from family, orientation on necessary skills within the industry, encouraging high turnout of women in building construction, creating local class to pre informed women and helping women to taste on the practical aspect of building construction are possible solution to the problem women are encountered in participation in construction work in Nigeria.

#### 4. CONCLUSION

In conclusion, this study found that there is a discrimination and gender bias in the Ondo State building construction sector, and that some employers prefer to employ men for their construction projects, and the main reason behind was that, the state is predominantly a secular state and the majority of people has a unique culture, but in reality, male and female in terms of employment requirements and career development should have equal opportunity. Based on the findings in this study, for women to be encourage in participation in construction, the assumption that, construction industry is a male industry should be de-emphasized and equal gender image should be focus so as to attract and retain talented women. Also, the industry should improve the environmental factors in respect to women by introducing flexible work hours, reducing work load and making the work less tedious and stressful.

#### Recommendations

Based on the findings of this study, the following recommendations were made (1) The industry should improve the environmental factors in respect to women by introducing flexible work hours, reducing work load and making the work less tedious and stressful. (2) There should be patronage of women practicing builders through contract awards as contractors or consultants by government. (3) Avenues should be created by the professional and regulatory body for experienced women professionals in the industry to mentor the younger female graduates.

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