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## FOREWORD

I warmly welcome all and sundry to the volume 3 issue 1 of Federal Polytechnic – Journal of Pure and Applied Sciences (FEPI-JOPAS) which is a peer reviewed multi-disciplinary accredited Journal of international repute. FEPI-JOPAS publishes full length research work, short communications, critical reviews and other review articles. In this issue, readers will find a diverse group of manuscripts of top-rated relevance in pure and applied science, engineering and built environment. Many of the features that you will see in the Journal are result of highly valuable articles from the authors as well as the collective excellent work of our managing editor, publishing editors, our valuable reviewers and editorial board members.

In this particular issue, you will find that Joseph and Adebajji provided innovative technology on light traffic control system. Ogunkoya and Sholotan engaged standard method for microbiological assessment of shawarma from Igbesa metropolis for possible microbial contamination. Ilelaboye and Kumoye unveiled the effect of inclusion of different nitrogen source on growth performance of mushroom. Ogunyinka et al utilized Fletcher Reeves conjugate gradient method as a robust prediction model for candidates' admission to higher institutions. Omotola and Fatunmbi examined the impact of thermal radiation with convective heating on magnetohydrodynamic (MHD), incompressible and viscous motion of non-Newtonian Casson fluid. Aako and Are meticulously investigated factors affecting mode of delivery using binary dummy dependent models. Abiazim and Ojelade successfully synthesized biologically active silver nanoparticles using *Terminalia catappa* bark as the eco-friendly source.

In addition, Olowosebioba et al. assessed the rectifying effects of various diodes in power supply units using multisim circuit design software programme. Olujimi et al. successfully accomplished the use of fingerprint based biometric attendance system for eliminating examination malpractices with enhanced notification. Alaba reported the nutritional status assessment of school age children (6-12 years) in private primary school in Ilaro. Muhammed-lawal et. al. assessed the execution and effect of corporate social responsibilities and return to marketing. Awolola and Sanni's research was about achieving quality of engineering education and training in Nigeria using Federal Polytechnic, Ilaro as the case study. Oladejo and Ebisin expatiated on virtual laboratory as an alternative laboratory for science teaching and learning.

Finally, Aneke and Folalu investigated the prospect and problems of the hotels in Ilaro, Ogun State.

I would like to thank and extend my gratitude to my co-editors, editorial board members, reviewers, members of FEPI-JOPAS, especially the Managing Editor, as well as the contributing authors for creating this volume 3 issue 1. The authors are solely responsible for the information, date and authenticity of data provided in their articles submitted for publication in the Federal Polytechnic Ilaro – Journal of Pure and Applied Sciences (FEPI-JOPAS). I am looking forward to receiving your manuscripts for the subsequent publications.

You can visit our website (<https://www.fepi-jopas.federalpolyilaro.edu.ng>) for more information, or contact us via e-mail us at [fepi.jopas@federalpolyilaro.edu.ng](mailto:fepi.jopas@federalpolyilaro.edu.ng).

Thank you and best regards.

***E-Signed***

***Prof. Olayinka O. AJANI***

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Article

## Saw Millers Corporate Social Responsibilities and Returns to Marketing

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### Abstract

Over the years, corporate social responsibility is an idea that is rampant in business reporting and is used in fulfilling the company's responsibilities to their society. This study assessed the execution and effect of corporate social responsibilities on the income realized from saw wood marketing among saw millers in Iseyin town of Oyo State. A purposive sampling technique was used to select 115 saw millers. Well-structured questionnaires and interview guides were used to obtain data from the respondents and the data were analyzed with descriptive analysis, profit margin, correlation analysis, and multiple linear regression analysis. The Result shows a significant relationship occurs between corporate social responsibilities and the income realized from sawn wood marketing ( $p < 0.05$ ) and executing economic responsibility in their business will decrease the income realized from sawn wood marketing. Also, gender, awareness of corporate social responsibility, agreed price, and improved well-being of the peoples through laws from the host community were factors that influenced the execution of corporate social responsibilities in the sawn wood business. Hence, saw millers are required to be enlightened through extension agents that business success cannot be achieved with profit only.

**Keywords:** Corporate Social Responsibilities, Sawn Wood, Saw Millers, Marketing, Profitability Analysis.

### INTRODUCTION

Over the years, Corporate Social Responsibility (CSR) is an idea rampant in business writing, all companies have a rule regarding corporate social responsibility and make a report every year. Corporate social responsibility is used in fulfilling the company's responsibilities to their society.

Many researchers have different definitions for corporate social responsibility and most of the definitions incorporate economic, environmental, and social concerns to the idea. Hopkins (2004) and Abd Rahim, et al (2011) defined corporate social responsibility as "handling the stakeholders of the firm in a manner considered acceptable in civilized societies". European Commission (2001) defines corporate social responsibility as an idea whereby companies incorporate in their business processes, social and environmental concerns, and also voluntarily communicate with their stakeholders.

Carroll(1979, 1991) also defines corporate social responsibility as four categories of responsibilities that are expected from companies to give to society at a certain period, and these responsibilities are economic, legal, ethical, and philanthropic. According to him economic responsibility is an initial obligation in business and is required by society that business should be profitable. Continued profitability is needed to assist society's further expectations of businesses. Legal responsibility is when businesses are anticipated and needed to obey the laws and regulations recognized by lawmakers at federal, state, and local levels as a condition of working. Ethical responsibility is when companies hold those activities, morals, policies, and practices that are anticipated or forbidden by society even though they are not organized into law, to decrease damage to all stakeholders with whom the companies relate to. Philanthropic responsibility is the responsibility of companies to offer back and give financial resources, products, and services, community development, volunteerism by workers and management to the community. Therefore this paper will measure the

effect of corporate social responsibility using Carroll's four categories of responsibilities.

Sawn timber is produced by sawmills in Nigeria. Ogunwusi (2012), RMRDC (2009), Ogunsanwo, (2010), & GWV Consultants (1994) reported that the sawmilling industry constitutes more than 90% of small-scale operatives in the sector.

The majority of sawmills in Nigeria decline in value due to inefficient usage. Major challenges facing the industry are that it cannot process small-diameter logs from forest plantations, degenerated timber supply in volume, size of logs, and quality. Also, high manufacturing costs, frequent disruption of electricity supply, ancient equipment, scarcity of spare parts, delays and improper stock management, and unlawful felling of trees are other challenges facing the industry.

Therefore, this paper identifies forms of corporate social responsibility projects embarked upon by saw millers, assesses the activities of saw millers which affect the environment, determine the results of corporate social responsibilities on the income realized from sawn wood marketing, and also detect the factors that influenced the execution of corporate social responsibilities in the sawn wood business.

## MATERIALS AND METHODS

### Study Area

The study was conducted in Iseyin town. The town is located on a latitude of 7.9765°N and a longitude of 3.5914°E. Iseyin is about 100 kilometers north of Ibadan and comprises 11 wards. A cotton-based textile known as Aso-Oke is their major business.

The town was chosen due to its closeness to the old Oyo national park that represented the national forest which is predominant in Nigeria.

### Sampling Techniques

A purposive sampling procedure was used to select 40 saw millers each in 3 different sawmills namely Abaletu, Anaobalowo, and Oluwole. 115 saw millers gave vital information out of 120 saw millers, and this was used for the analyses. The remaining were not used due to inadequate information.

### Data collection and analysis

Data were gathered from the saw millers through the use of a well-designed questionnaire and interview guide. Data collected includes information on socio-economic characteristics of saw millers, the activities of saw millers which affected the environment, effects of corporate social responsibility on the income realized from sawn wood marketing, and the factors that influenced the execution of corporate social responsibility in the sawn wood business.

Data were analyzed with descriptive analysis, profit margin, correlation analysis, and multiple linear regression analysis.

The descriptive analysis was used to determine socio-economic characteristics, forms of corporate social responsibility projects embarked upon by saw millers to residents, and the activities of saw millers which affected the environment.

The profit margin was used to determine the profitability of sawn timber business.

$$\text{Profit margin} = \frac{\text{Net Profit}}{\text{Total revenue}} \times 100$$

$$\text{Net profit} = \text{Total revenue} - \text{Total cost}$$

Total revenue is the total income generated from sawn wood marketing while total cost includes variable inputs such as cost of round wood per unit, the total cost of milling wood, tax on wood, transportation cost per cycle, generator cost, blade replacement, and labor cost.

Correlation analysis was used to determine the effect of corporate social responsibility on the income realized from sawn wood marketing. Also, regression analysis was used to detect factors that influenced the execution of corporate social responsibility in the sawn wood business.

Multiple linear regression models for the factors that influenced the execution of corporate social responsibility in sawn wood business is given by:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \epsilon_i$$

where

$Y$  = Returns to sawn wood marketing (Total revenue)

$\beta_0$  = Constant

$\beta_1, \dots, \beta_k$  = Regression coefficients

- $X_1$  = Gender
- $X_2$  = Age in years
- $X_3$  = Marital status
- $X_4$  = Years of formal education
- $X_5$  = Saw millers marketing experience in year
- $X_6$  = Awareness of corporate social responsibility
- $X_7$  = Agreed price
  - $X_8$  = Compliance with the laws from the government
  - $X_9$  = Improvement of the business enterprise through government laws
  - $X_{10}$  = Compliance with the laws from the host community
  - $X_{11}$  = Improvement of the peoples' well-being through the host laws
  - $X_{12}$  = Donation to a local organization
  - $X_{13}$  = Provision of services in arrears of voluntary labor to the host community
- $\epsilon_i$  = Error term

## RESULTS AND DISCUSSION

### Socioeconomic Characteristics of Saw Millers

The socioeconomic characteristics analyzed include sex, age, marital status, formal education, and years of experience in sawn wood marketing. Details are presented in the table 1 below:

A total of 78.3% of the saw millers were males while 21.7% were females. This is due to huge capital intensive and the nature of the job. This report is in line with Sekumade et al. (2011), & Aiyeloja et al. (2013). Sekumade (2011) reported that males occupied difficult jobs and most capital intensive in Nigeria's economy. Aiyeloja (2013) found that sawn wood marketers were occupied by a male, and this is as a result of the laborious nature of categorizing and arranging planks. Most of the respondents fall within the range of 30-39 years with 36.5%, 31.3% fall within 40-49 years, 21.7% were found to fall within 50-59 years and 10.3% were above 60 years.

The results indicated that most of the saw millers were middle-aged men due to the nature of the business which involves a lot of energy, ability to stay longer at work. This finding is similar to Sekumade et al. (2011),

Adedokun et al (2017), & Arowolo et al. (2020). Sekumade (2011) found that 52% of the middle-aged men ranging from 41-50 years were involved in sawmill business, and this is a result of the laborious nature of the business. Adedokun (2017) reported that 50% of the respondents fall within the age range of 31-40 years. Arowolo et al. (2020) reported that 42% of the respondents fell within the age range of 41-60 years and the average age was 45 years, which implies that they are in their active age and can handle the laborious nature of the business. Nearly all (91.3%) of the respondents were married while 8.7% were widows. The result indicated that most of the saw millers involved in the business were married in order to increase family income.

The saw millers without formal education were 8.7%, 25.2% had primary education, and 44.3% had secondary education while 21.7% had tertiary education. This shows that a greater percentage of the respondents are literate, due to the involvement of measurements and calculations with management skills. The finding agrees with the assertion of Aiyeloja et al. (2013) that sawn wood business needs a certain degree of literacy because of measurements and simple calculations involved in plank processing. The household size of the respondents ranging between 1- 5 had the highest percentage of 67.8% followed by the household size of 6-10 with 32.2%. This implies that saw millers have easy access to family labor that helps in the business thereby reducing the cost of labor. 39.1% of saw millers have 1-10 years of marketing experience, 46.1% have 11-20 years of marketing experience, 12.2% have 21-30 years of marketing experience while 2.6% have 31- 40 years of marketing experience. It shows that the profitability of the business and age hold some respondents to stay in the business, but as years go on many leave the business to their children because of the magnitude of energy required. This result is similar to oluwani et al. (2014), where 50% of respondents had 11-20 years of marketing experience, 26.7% had 10 years below, while 23.3% had over 21, and Arowolo et al. (2020) on the performance of selected sawn timber marketing, where 88.3% of the respondents had 1-15 years of marketing experience while 11.7% had more than 15 years.

**Table 1: Socioeconomic Characteristics of the Saw Millers (n=115)**

<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	90	78.3
Female	25	21.7
<b>Total</b>	<b>115</b>	<b>100</b>
<b>Age grouped (years)</b>		
30-39	42	36.5
40-49	36	31.3
50-59	25	21.7
60 and above	12	10.3
<b>Total</b>	<b>115</b>	<b>100</b>
<b>Marital status</b>		
Married	105	91.3
Widowed	10	8.7
<b>Total</b>	<b>115</b>	<b>100</b>
<b>Years of formal education</b>		
No formal education	10	8.7
Primary education	29	25.2
Secondary education	51	44.3
Tertiary education	25	21.7
<b>Total</b>	<b>115</b>	<b>100</b>
<b>Household size</b>		
1-5	78	67.8
6-10	37	32.2
<b>Total</b>	<b>115</b>	<b>100</b>
<b>Marketing experience</b>		
1-10	45	39.1
11-20	53	46.1
21-30	14	12.2
31-40	3	2.6
<b>Total</b>	<b>115</b>	<b>100</b>

Source: Field Survey, 2020

### Forms of Corporate Social Responsibility Projects Embarked upon by Saw Millers

The forms of corporate social responsibilities analyzed include economic responsibility, legal responsibility, ethical responsibility, and philanthropic responsibility. Details are presented in Table 2

**Table 2: Forms of Corporate Social Responsibility (n= 115)**

Forms	Frequency	Percentage
<b>Economic responsibility</b>		
<b>a. Agreed price</b>		
Yes	80	69.6
No	35	30.4
<b>Total</b>	115	100
<b>b. Forms of price</b>		
<b>Minimum price</b>	58	50.4
<b>Maximum price</b>	33	28.7
None	24	20.9
<b>Total</b>	115	100
<b>Legal responsibility</b>		
<b>c. Awareness of law</b>		
Yes	115	100
<b>d. Improved business</b>		
Agree	89	77.4
Strongly agree	19	16.5
Undecided	7	6.1
<b>Total</b>	115	100
<b>e. Government support of the forest sector</b>		
Yes	70	60.9
No	45	39.1
<b>Total</b>	115	100
<b>Ethical responsibility</b>		
<b>f. Community law</b>		
Yes	115	100
<b>g. Improved well-being</b>		
Yes	107	93
No	8	7
<b>Total</b>	115	100
<b>Philanthropic responsibility</b>		
<b>h. Donation to organizations</b>		
Yes	92	80
No	23	20
<b>Total</b>	115	100
<b>i. Provision of services</b>		
Yes	100	87
No	15	13
<b>Total</b>	115	100

Source: Field survey, 2020

The result reveals that 69.6% of the saw millers agreed on the selling price of wood while 30.4% of the saw millers did not agree. About 50.4% of the respondents agreed on the selling price with minimum price per unit, 28.7% of the respondents agreed on selling price with

maximum price per unit while 20.9% of the respondents did not agree with either minimum or maximum selling price of wood. This shows that most of the saw millers were involved in economic responsibility and agreed on selling price with either minimum or maximum price

per unit, also they have good relationships with their customers while the minority of the respondents were

All the respondents were aware of the laws from the government which prevented them from going to forest reserve to log timbers. Most (77.4%) of the respondents agreed that laws provided by the government have improved their business enterprise, 16.5% of the respondents strongly agreed that laws provided by the government have improved their business enterprise while 6.1% of the respondents are undecided that laws provided by the government have improved their business enterprise. It was also found that 60.9% of the saw millers believed that governments have done enough to support the forest sector in the country and 39.1% of the saw millers did not believe that governments have done enough to support the forest sector in the country, they wanted more from the government. This shows that the majority of the respondents were into legal responsibility due to strict supervision from the authority and a minority of the respondents were not doing it due to non-challant attitudes.

All the respondents were aware of the laws by the host community guiding their activities in the forest reserve and 93% of the respondents agreed that laws provided by the host community have improved the well-being of the people in the community such as the construction of roads, provision of transformer and water while 7% of

not doing it because they wanted to meet their family needs.

the respondents did not agree that laws provided by the host community have improved the well-being of the people in the community. This implies that the majority of the saw millers were into ethical responsibility while the minority was not into ethical responsibility.

The majority (80%) of the saw millers donated to local organizations that need financial assistance through their cooperative society while 20% saw millers did not donate. 87% of the respondents provide services in areas of volunteer labor to the host community such as filling the potholes on the roads and renovation of the damaged tap water while 13.1% of the respondents did not provide services to the host community. This implies that most of the saw millers were into philanthropic responsibility whereas the minority of the saw millers were not into philanthropic responsibility.

#### The Activities of Saw millers which affected the Environment

Activities include the planting of trees, disposal of wood waste, use of soundproof devices, the distance of sawmills to the main road, and the time of offloading round wood from the trailer.

Table 3: Activities of Saw millers which affected the environment (n=115)

Activities	Frequency	Percentage
<b>a. Planting of trees</b>		
Yes	75	65.2
No	40	34.8
<b>Total</b>	<b>115</b>	<b>100</b>
<b>b. Disposal of wood waste</b>		
Burning	65	56.5
Selling	7	6.1
Burning and selling	22	19.1
Dumping inside designated open space	11	9.6
Dumping on vacant plots	6	5.2
Burying of waste to use as drainage during rainfall	4	3.5
<b>Total</b>	<b>115</b>	<b>100</b>
<b>c. Use of soundproof devices</b>		
Yes	40	34.8
No	75	65.2
<b>Total</b>	<b>115</b>	<b>100</b>
<b>d. Distance of sawmills to the main road &lt; 10km</b>		
	29	25.2

10km – 20km	16	13.9
21km – 30km	6	5.2
31km – 40km	16	13.9
> 40km	48	41.7
<b>Total</b>	<b>115</b>	<b>100</b>
<b>e. Time of offloading round wood from the trailer</b>		
<b>Night</b>	57	49.6
<b>Anytime</b>	58	50.4
<b>Total</b>	<b>115</b>	<b>100</b>

Source: field survey, 2020

The result shows that 65.2% of the saw miller plants trees annually with the help of their association through the intervention of governments who make provisions for acres of land with the specification of seedlings and supervision. While 34.8% of the respondents did not plant trees due to their ignorance. Wood wastes generated during sawmilling activities include tree barks, cut slabs, strips, plain shavings, and sawdust. About 56.5% of the saw millers dispose of their wastes gathered for two weeks through burning, 6.1% sell their wastes, 19.1% sell and burn their wastes, 5.2% dump wastes on abandoned plots, 3.5% of the saw millers use it for drainage by burying it. While 9.6% of the saw millers make use of designated open space to dump their waste. The result implies that burning of the waste in an open space, fumes from the generators used during the operational procedure of sawmilling activities affect the eyes and lungs of the people around the sawmills due to air pollution. It was noticed that burying of wastes which is used for drainage do cause soil erosion thereby leading to flood during heavy rainfall. This result is similar to oluwani et al. (2014) on socioeconomic impacts of sawmill industry on residents, where 96% of the sawmill in Minna, Niger State gathered their

sawmill waste in three locations ( Paiko road, Maitunbi, and Soka-kahuta area) and dispose of through open-air burning, which contribute to air pollution that is a cause to climate change and global warming.

Furthermore, 43.5% of the respondents use soundproof devices to reduce the noise of milling machines, which reduces noise pollution. Almost (56.5%) of the respondents did not use soundproof devices because they cannot afford them. All the respondents have their shops far away from the main road; therefore there is no obstruction of road that causes traffic jam. Also, 49.6% of the respondents offload their round wood in the night thereby reduce traffic jam on the main road which may result to fumes (carbon monoxides) that comes out from trucks, which cause air pollution that affects the lungs of the people, while 50.4% of the respondents offload anytime during the day.

**Effects of Corporate Social Responsibilities on Income realized from Sawn Wood Marketing.** Table 4 shows the profitability of the sawn millers based on the running cost and the revenue monthly.

**Table 4: Profitability of Saw millers on Sawn Timbers Marketing**

Timber Species	Common name	Total cost (₦)	Total revenue (₦)
<b>Anogeissus leocarpus</b>	Igi ayin (African birch)	14,242.78	63,794.78
<b>Gmelina arborea</b>	Igi mailana (Gmelina wood)	14,624.26	44,330.43
<b>Dalbergia melanoxylon</b>	Orin dudu (African black wood)	40,130.43	83,565.20
<b>Khaya senegalensis</b>	Igi mahogany (Mahogany wood)	11,161.74	35,537.39
<b>Ceiba pentadra</b>	Igi Araba (Kapok tree)	9,234.78	34,127.83
<b>Daniellia oleivera</b>	Igi Iyaa (African balsam tree)	9,193.43	26,707.83

Source: Field survey, 2020

Profit margin =  $\frac{\text{Net Profit}}{\text{Total revenue}} \times 100$

Total revenue

Net profit = Total revenue – Total cost

Profit margin of ayin =  $\frac{49,552}{63,794.78} \times 100 = 77.67 \sim 78\%$

Profit margin of mailana =  $\frac{29,706.17}{44,330.43} \times 100 = 67.01 \sim 67\%$

Profit margin of orin dudu =  $\frac{43,434.77}{83,565.20} \times 100 = 51.98 \sim 52\%$

Profit margin of mahogany =  $\frac{24,375.65}{35,537.39} \times 100 = 68.59 \sim 69\%$

Profit margin of araba =  $\frac{24,893.05}{34,127.83} \times 100 = 72.94 \sim 73\%$

Profit margin of iyaa =  $\frac{17,514.4}{26,707.83} \times 100 = 65.58 \sim 66\%$

The result reveals that among the timber species, ayin had the highest profit margin of 78%, araba had profit margin of 73%, followed by mahogany with profit margin of 69%, mailana with profit margin of 67%, iyaa with profit margin of 66% while orin dudu had least profit margin of 52%. This implies that there is a high-profit margin and for each ₦ 1 of revenue, the saw millers will earn ₦ 0.78, ₦ 0.67, ₦ 0.52 ₦ 0.69, ₦ 0.73,

₦ 0.66 net profit on ayin, araba, mahogany, mailana, iyaa, and orin dudu respectively.

Results of the Pearson correlation show that a weak negative correlation occurs between economic responsibility and sawn wood marketing,  $r(113) = -.24, p < .001$ . This implies that the agreed price harm the income realized. Either minimum or maximum agreed prices given will decrease income realized. Hence, executing economic responsibility in their business will decrease revenue generated by the saw millers.

There is a weak positive correlation between laws provided by the government and returns to sawn wood marketing,  $r(113) = .14, p = .13$ , which is not significantly correlated. This shows that whether the saw millers execute their legal responsibility in their business or not, It does not affect the income realized from their business.

Furthermore, there is a weak positive correlation between laws provided by the host community and the returns to sawn wood marketing,  $r(113) = .14, p = .13$ , which is not statistically significant. This shows that revenue generated by the saw millers is not dependent on whether the saw millers execute their ethical responsibility in their business.

A weak positive correlation exists between the donation to organizations or individuals and returns to sawn wood marketing,  $r(113) = .16, p = .09$ , which is not significantly correlated. Also, there is a weak, positive correlation between the voluntary services and income realized from sawn timber marketing,  $r(113) = .04, p = .97$ , which is not statistically significant. This shows that whether the saw millers execute their philanthropic responsibility in their business or not, the revenue generated by the saw millers is not affected.

**Factors Influencing Execution of Corporate Social Responsibilities in Sawn Timber Business**  
**Table 5: Results of Multiple Linear Regression Model**

Variables	Coefficients	Standard error	p-value
Intercept	107620.156	175641.870	0.541
$X_1 = \text{Sex}$	55947.270	36643.155	0.130
$X_2 = \text{Age}$	30202.996	225.894	0.015*

$X_3$ = Marital status	-45790.051	57993.101	0.432
$X_4$ = Years of formal education	12356.168	12248.012	0.315
$X_5$ = Saw millers marketing experience	-15192.825	11891.157	0.204
$X_6$ = Awareness of corporate social responsibility	40913.118	16394.502	0.014**
$X_7$ = Agreed on price	-47224.127	24548.254	0.057*
$X_8$ = Compliance with the laws from the government	-31767.509	27738.650	0.255
$X_9$ = Improvement of the business enterprise through government laws	16102.820	16902.408	0.343
$X_{10}$ = Compliance with the laws from the host community	2949.083	28731.138	0.918
$X_{11}$ = Improvement of the peoples' well-being through the host laws	100716.127	47286.289	0.036
$X_{12}$ = Donation to the local organization	-21966.852	27104.938	0.420
$X_{13}$ = Provision services in areas of volunteer labor to host community	-4110.685	31738.308	0.897
F – statistics	3.042		0.001
R- square	0.281		

Source: Field survey, 2020

The regression result shows that coefficients of age, and awareness of corporate social responsibility are positive and statically significant at  $p < 5\%$ . This implies that age and awareness of corporate social responsibility are directly dependent on income realized from sawn wood marketing. Coefficients of gender, years of formal education, improvement of business enterprise through government laws, compliance with the laws provided by the host community, and improved well-being of the people through laws from the host community are positive and not significantly related to the returns on sawn wood marketing. Coefficients of saw millers' experience, compliance with the laws provided by the governments are negative and statistically significant at  $p < 5\%$ . Also, marital status, coefficients of the agreed price, donation to a local organization, and provision of services in areas of volunteer labor are negative and not statistically significant. This implies that marital status, agreed price, donation to the local organization, and provision of services in areas of volunteer labor harms the returns to saw wood marketing, thereby decrease the income realized.

Hence, gender, awareness of corporate social responsibility, agreed price, and improved well-being of the people through laws from the host community were the main factors influencing the execution of corporate social responsibility in the sawn timber business. The f-statistics is 3.042 and significant at a 5% level, which implies that all the independent variables are jointly significant. The coefficients of determination(R-square) with the value of 0.281 imply that 28% of the variations show the explanatory variables on returns to sawn wood marketing.

## CONCLUSION

Investors have highlighted corporate social responsibility as a heavy tool for the success of the business to be accomplished. Findings from the study show that the income realized from the business is not dependent on whether the saw millers execute their corporate social responsibilities or not, it implies that there are opportunities to sustain the livelihood of the

saw millers. The following recommendations are therefore suggested:

1. Saw millers are required to be enlightened through extension agents that business success cannot be achieved with profit only, and make the saw millers participate in corporate social responsibilities willingly.
2. Saw millers should be educated on the use of chemicals to dispose of their wood shavings and other waste products instead of burning the waste, which has effects on their environments.
3. Government should play vital roles by providing adequate power supply and availability of spare parts and soft loans at the appropriate time to reduce the cost of production.

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