

## Determinants of Red Cherry Coffee Prices at Asa Coffee Central Aceh

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**Abstract:** This study aims to determine the factors (color, aroma, age) that affect the price of red coffee beans at ASA Coffee. This research was conducted at ASA Coffee, located at Jalan Simpang Wariji, Blang Kolak I. The method of analysis is as follows: 1) Descriptive analysis is an analysis that describes respondents' responses to the perception of coffee farmers (coffee sellers) on satisfaction with the purchase price at ASA Coffee. , 2) Quantitative analysis using multiple regression analysis is an analysis used by researchers, if the researcher intends to predict how the condition (up and down) of the dependent variable, if two or more independent variables are predictors. Based on the F test, it can be seen that the calculated F is smaller than the F table value of  $70.784 \leq 21.843$  with a significant level below 0.05 where the Sig value is  $0.000 \leq 21.843$  with a significant level below 0.005 so it can be concluded that color (X1), aroma (X2), age (X3), affects purchases at ASA Coffee. Based on the t test, it can be seen that there is a significant effect between color, aroma, age and the price of red coffee beans (Cherry red). AS Coffee Central Aceh should always provide good service to farmers. Farmers should always know the factors that affect the price of coffee.

**Background:** Coffee is one of the agricultural commodities that has penetrated the international trade market. One of the main coffee producing areas in Indonesia is the province of Aceh. The coffee-producing centers in Aceh province are located in Central Aceh District and Bener Meriah District.

Currently, the increase in coffee production in Indonesia is still hampered by the low quality of the coffee beans produced, which affects the quality of the coffee beans produced, thus affecting the development of the final coffee production. This is due to improper post-harvest handling, including the fermentation process, washing, sorting, drying and roasting. In addition, the specifications of the tools and machines used can also affect each stage of coffee bean processing.

The results of agricultural commodities in the form of coffee are easily damaged, therefore further processing is needed to improve quality and last longer when stored. For this reason, it is necessary to have proper coffee processing techniques to maintain the quality of the product. With the existence of a small and medium coffee powder processing home industry, it is expected to increase the added value of coffee agricultural commodities.

In 2011 ASA coffee was present as one of the producers of Arabica and Robusta coffee in Central Aceh Regency, which was founded by Mr. Armiyadi in Sanehen village, Silihara district, Central Aceh district, then moved to Jalan Lebe Kader Simpang Wariji Blang Kolak I.

According to Najiyati and Danarti (2004), in the trading world there are several classes of coffee, but the ones that are most often cultivated are only Arabica, Robusta and Liberica coffees.

Some coffee farmers sell Arabica coffee in the form of red coffee (cheery red). The price offered is IDR 95,000 to IDR 120,000 for each team or 12 kg. In addition, coffee is also sold in the form of seeds by farmers. And only a few who process it in the form of ground coffee which is ready to be made a drink. The lack of interest of farmers to sell coffee in the form of ground coffee is caused, among other things, because selling in the form of beans makes it easier to immediately make a profit. Meanwhile, for ground coffee, certain capital, time and expertise are needed. The factors that affect the price of cherries, namely cherry color, cherry aroma, and cherry age.

ASA Coffee is a private company that was founded in the Gayo Highlands of Takengon in 2009, ASA Coffee has a Gayo specialty coffee processing unit, roasting machine, retail coffee powder. As a producer of Gayo coffee, ASA Coffee provides coffee beans/green bean arabica, both social and premium grade I, wild luak arabica coffee and wine coffee, longberry coffee and pearberry coffee/ where the processing is separate and processed according to standard operating procedures (SOPs). and trained farmers. The source of the raw materials is taken from the Gayo coffee plantation which is taken from several altitudes and from various types of Gayo Coffee varieties grown in the Gayo Highlands.

ASA Coffee provides several types of coffee, namely: 1) Kopi Luwak: a) Wild Luwak Coffee Grain; b) Tangkar Civet Coffee Grain; c) Wild Luwak Coffee Grean Bean; d) Grean Bean Kopi Luwak Tangkar; e) Wild Luwak Coffee Powder; f) Tangkar Civet Coffee Powder. 2) Specialty Coffee: a) Grean Bean GayoSpeciaty

Arabica Coffee; b) Green Bean Arabica Gayo Grade I; c) Green Bean Arabica Grade II; d) Gayo Specialty Coffee Powder; e) Premium Arabica Coffee Powder; f) Commercial Coffee Powder. 3) Robusta Coffee: a) Green Bean Robusta Gayo; b) Gayo Robusta Coffee Powder. 4) Peaberry Arabica Gayo Coffee: a) Green bean Peaberry Arabica Gayo; b) Gayo Peaberry Coffee Powder.

ASA Coffee as coffee buyers, where they buy coffee from collectors who spread to several areas in Central Aceh and Bener Meriah districts. There are 30 collectors. The coffee purchased has advantages, where before purchasing ASA Coffee, pay attention to the color, aroma and age of the cherry.

**Materials and Methods: Regression Analysis and Classical Assumption Test**

Regression analysis is a technique for building equations and using these equations to make predictions. Thus, regression analysis is often referred to as predictive analysis. It is said to be a prediction because the predicted value does not always match the real value. The smaller the level of deviation between the predicted value and the real value, the more precise the regression equation that is formed. It can be defined that regression analysis is a statistical method used to determine the possible form of relationship between variables with the main objective of using the method to predict or estimate the value of another known variable. There are two types of Linear Regression Equations, namely simple linear regression analysis and multiple linear regression analysis.

Simple linear regression is a process to obtain a mathematical relationship in the form of an equation between a single dependent variable and a single independent variable or in other words, linear regression involving only one independent variable X which is associated with one dependent variable Y. The general form of the regression model simple linear, namely:

$$Y = b_0 + b_1x_1 + e$$

Where :

X = dependent variable (dependent)

b<sub>0</sub> = intercept parameter

B<sub>1</sub> = regression coefficient (slope)

X<sub>1</sub> = independent variable (independent)

e = estimator error.

**Results: ASA Coffee Overview**

ASA Coffee is one of the Arabica and Robusta coffee producers in Central Aceh Regency, which was founded by Mr. Armiyandi in 2011 in Sanehen village, Silih nara district, Central Aceh district, then moved to Jalan Lebe Kader Simpang Wariji Blang Kolak 1. This ASA word comes from a name Agro Solana Aulia who is the first child of Mr. Armiyadi, the word ASA in the Indonesian dictionary means hope, so ASA Coffee is expected to be the hope of the Gayo Coffee industry in the future.

Mr. Armiyadi works at the Baitul Qiradh Baburayan cooperative which holds the position of secretary, almost every month there is a comparative study of students. On this occasion, the visiting students saw a coffee factory, but there was no coffee ready to be drunk, even though the students wanted to buy it as a souvenir to take home. roasting to make coffee grounds. As an industrial business, ASA Coffee was originally founded at the residence of Mr. Armiyadi, over time it has now become a cafe in the city of Takengon.

**Table. 1** Cherry Color that the Collector sells to ASA Coffee

No	colour Cerry	Frequency	Percent
1	yellowish green yellowish	2	8.0%
2	red	3	12.0%
3	bright red	20	80.5%
		25	100%

Source: Data Processed Year 2017

Based on table 1 above, it can be seen that generally coffee collectors (take coffee), sell red coffee (cherry) to ASA Coffee with bright red color conditions, namely 20 people (80.5%), yellowish red 3 people (12.0 %) and yellowish green color 2 people (8.0%).

**Cherry Scent**

**Table. 2** Cherry Aromas sold by Collectors to ASA Coffee

No	cherry scent	Frequency	Percent
1	rottenso	2	8.0%
2	ur	3	12.0%
3	fresh	20	80.5%

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		25	100%
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*Source: Data Processed Year 2017*

Based on table 2 above, it can be seen that generally coffee collectors (toke coffee) sell red coffee (cherry) to ASA Coffee with fresh aroma conditions, namely 20 people (80.5%), sour aroma 3 people (12.0%) and foul smell 2 people (8.0%)

*Cherry's Age*

*Table. 3 Age of Cherries that Collectors sell to ASA Coffee*

No	cherry age	Frequency	Percent
1	More than 15 days	2	8.0%
2	Less than 15 days	3	12.0%
3		20	80.5%
		25	100%

*Source: Data Processed Year 2017*

Based on table 3 above, it can be seen that generally coffee collectors (toke coffee) sell red coffee (cherry) to ASA Coffee with the age of 15 days, namely 20 people (80.5%), age less than 15 days 3 people (12, 0%) and age more than 15 days 2 people (8.0%)

*Cherry Price Level*

*Table. 4 Prices of cherries sold by Collectors to ASA Coffee*

No	Cherry price	Frequency	Percent
1	Low	1	4,0%
2	Medium	4	16.0%
3	Tall	20	80.5%
		25	100%

*Source: Data Processed Year 2017*

Based on table 4 above, it can be seen that generally coffee collectors (toke coffee) sell red coffee (cherry) to ASA Coffee at a high price of 30 people (80.5%), medium price 4 people (16.0%) and price low 1 person (4.0%).

*Multiple Linear Regression Classical Assumption Test*

*1. Normality Assumption Test*

Multiple normalist test to determine the data that has been collected is normally distributed or not the results of the residual normalist assumption test of the influence model color, aroma, and age of cherry to cherry red coffee using histogram graphic analysis, can be seen in the following figure:

*a. Test distribution is Normal.*

Based on the table above, it can be seen that the significance value is 0.000 where the value of ni is less than 0.05 so it can be concluded that the data tested is not normally distributed. Thus, it can be concluded that there is an influence between color, aroma, age of cherries and the selling price at ASA Coffee.

*2. Multicollinearity Assumption Test*

The multicollinearity assumption test aims to test whether the regression model found a correlation between the independent variables. In multicollinearity provided that there is no multicollinearity if the tolerance value is greater than 0.10 and on the contrary multicollinearity occurs if the tolerance value is less than or equal to 0.10. The results of the multicollinearity assumption can be seen in the table below

Based on the output value above, it can be concluded that the color tolerance value is  $0.111 \geq 0.10$  and the VIF value is  $9.040 \leq 10$ , meaning that there is no multicollinearity in the color. Then for the aroma, the tolerance value is  $0.208 \geq 0.10$  and the VIF value is  $4.801 \leq 10$ , meaning that there is no multicollinearity in the aroma. at age the tolerance value is 208 0.1 and the VIF value is  $4.801 \leq 10$  or 4.175 meaning that there is no multicollinearity at age.

Test of Conformity Test of Goodness of Fift and Hypothesis Testing

1. Determination Test ( $R^2$ )

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.870 <sup>a</sup>	.757	.723	.275

a. Predictors: (Constant), Age, Scent, Color

b. Dependent Variable: Price

From the output mode summary above, it can be seen that the coefficient value (R Square) is 0.757. The value of 0.757 is the square of the correlation coefficient R, which is  $0.070 \times 0.070 = 0.757$ . The coefficient number (R Square) of 0.757 is equal to 75.7%, which means that cherry color, cherry aroma and cherry age affect the purchase price at ASA Cofee.

2. Test Simultaneously

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.968	3	1.656	21.643	.000 <sup>a</sup>
	Residual	1.592	21	.076		
	Total	6.560	24			

a. Predictors: (Constant), age, scent, colour

b. Dependent Variable: price

Based on the table above, it can be seen that based on the results of the SPSS output, the sig value is  $0.000 \leq 0.05$ . So it can be concluded that color (X1), aroma (X2), age (X3) affect the purchase price of red coffee beans at ASA Coffee Central Aceh.

3. Partial Test Test (t)

Partial hypothesis testing on multiple linear regression can be seen in the following table:

Coefficients<sup>a</sup>

Model			Standardized Coefficients	t	Sig.
price	Y	25	1	3	.523
colour	X1	25	1	3	.614
Scent	X2	25	1	3	.614
age	X3	25	1	3	.614
Valid N (listwise)					

a. Dependent Variable: Harga

Coefficien ts<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.622	.270		2.305	.031
colour	-3.312E-15	.275	.000	.000	1000
scent	.393	.201	.461	1.959	.064
age	.393	.201	.461	1.959	.064

Dependent Variable: price

a. Color

Based on the table above, the ttable value is 1.705 and the tcount value is 0.000, thus  $1.705 > 0.000$  then the value is  $0.05 \leq 1$  (Sig) then  $H_0$  is rejected, meaning that there is a significant effect between color and the price of red coffee beans (Cherry red). In other words, the better the color of the coffee, the better the quality of the coffee beans produced, so the higher the purchase price of coffee at ASA Cofee Aceh Tengah. Because the

level of coffee maturity will produce different coffee flavors. The easiest way to determine the ripeness of coffee is to look at the color. Both robusta and arabica coffee have a red color when they are ripe. The coffee picked should be coffee that is full red, because this color indicates that the coffee is fully ripe. Full red coffee has the best taste and aroma. Coffee that is too ripe or dark red in color results in dark brown coffee beans. This kind of coffee will produce a taste like the smell of earth. Only coffee cherries that are full red will produce quality coffee, while coffee that is young and overripe is of inferior quality, and there is nothing we can do to improve the quality of the coffee.

*b. Aroma*

Based on the table above, the *t*table value is 1.705 and the *t*count value is 1.595, thus 1.705 *t*count 0.064 then the value *H*<sub>0</sub> is rejected, meaning that there is a significant effect between color and the price of red coffee beans (Cherry red). In other words, the better the aroma produced, the higher the selling power of coffee at ASA Coffee, Central Aceh Regency. This is because freshly picked cherry coffee will have a fresh, sweet-smelling coffee fruit aroma, while coffee that has been picked for more than 12 hours will lose this fresh and sweet aroma.

*c. Age*

Based on the table above, the *t*table value is 1.705 and the *t*count is 1.595, thus 1.705 *t*count 1.705 then the value *H*<sub>0</sub> is rejected, meaning that there is a significant effect between color and the price of red coffee beans (Cherry red). In other words, the more timely the coffee picking, the higher the purchasing power of coffee at ASA Coffee Aceh Tengah. Because the frequency of picking cherry coffee cherries will affect the taste produced. The taste of immature cherries is that it gives off a greenish grass taste, straw taste and is the main source of astringents in coffee beans. While the fruit that is picked late or stored for a long time, the resulting taste is the emergence of a rotten fruit taste, excessive sour taste and unpleasant taste.

**Conclusion:** 1. Based on the *F* test, it can be seen that the calculated *F* is smaller than the *F* table value of  $70.784 \leq 21.843$  with a significant level below 0.05 where the Sig value is  $0.000 \leq 21.843$  with a significant level below 0.005 so it can be concluded that the color (*X*<sub>1</sub>), aroma (*X*<sub>2</sub>), age (*X*<sub>3</sub>), affects purchases at ASA Coffee. 2. Based on the *t* test, it can be seen that there is a significant effect between color, aroma, age and the price of red coffee (Cherry red).

**Key Word:** Coffee, Coffee prices, ASA Coffee

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## I. Introduction

Coffee is one of the agricultural commodities that has penetrated the international trade market. One of the main coffee producing areas in Indonesia is the province of Aceh. The coffee-producing centers in Aceh province are located in Central Aceh District and Bener Meriah District.

Currently, the increase in coffee production in Indonesia is still hampered by the low quality of the coffee beans produced, which affects the quality of the coffee beans produced, thus affecting the development of the final coffee production. This is due to improper post-harvest handling, including the fermentation process, washing, sorting, drying and roasting. In addition, the specifications of the tools and machines used can also affect each stage of coffee bean processing.

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## **II. Material And Methods**

### **Regression Analysis and Classical Assumption Test**

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Where :

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## **III. Result**

### **After ASA Coffee Overview**

ASA Coffee is one of the Arabica and Robusta coffee producers in Central Aceh Regency, which was founded by Mr. Armiyandi in 2011 in Sanehen village, Silih nara district, Central Aceh district, then moved to Jalan Lebe Kader Simpang Wariji Blang Kolak 1. This ASA word comes from a name Agro Solana Aulia who is the first child of Mr. Armiyadi, the word ASA in the Indonesian dictionary means hope, so ASA Coffee is expected to be the hope of the Gayo Coffee industry in the future.

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Table. 1 Cherry Color that the Collector sells to ASA Coffee

## **IV. Discussion**

Dyslipidemia in patients with diabetes plays an important role in development of atherogenesis. The standard of treatment for dyslipidemia have been statins. For the treatment of dyslipidemia the most commonly used statins are atorvastatin and rosuvastatin. (10)

The four major statin beneficiary groups have already been defined by NCEP 2013 report.

There is a wealth of evidence suggesting that lowering low density lipoprotein cholesterol (LDL-C) reduces the risk of cardiovascular disease (CVD). Both European and US guidelines for CVD prevention recommend the use of statins as first-line therapy for dyslipidemia and specify target LDL-C levels. Previously, a National Cholesterol Education Program (NCEP) report had proposed to lower target levels to even more aggressive LDL-C goals for very high-risk patients. Despite the proven benefits of LDL-C reduction, lipid management is suboptimal and many patients fail to achieve recommended LDL-C goals<sup>11,12</sup>. The most likely reasons for this are the use of agents with poor efficacy for LDL-C lowering and suboptimal dose titration.

Such aggressive LDL-C goals, however, are harder to achieve. The most effective statin at the lowest dose would represent a simple, effective treatment strategy, enabling more patients to achieve goals without the need for dose titration. Rosuvastatin, at a dose of 20 mg, has demonstrated high efficacy for LDL-C lowering, enabling patients with hypercholesterolemia to achieve their lipid goals<sup>10,11</sup>.

Currently no Indian study is available for treating diabetic patients with dyslipidemia or dyslipidemia alone with statin on alternate days and no previous study has documented the efficacy, safety and cost effectiveness of various statins prescribed to diabetic patients. Thus the present study aimed to build on this growing awareness of atherosclerosis-specific care of diabetes patients, by examining efficacy and safety of the two most commonly prescribed statins in India.

The present study was an open label prospective comparative study done in Department of General Medicine, at Dr. Ram Manohar Lohia Combined Hospital a tertiary care teaching hospital, Lucknow, Uttar Pradesh in the time interval of November 2014 to November 2015. (10)

The study shows that rosuvastatin (20mg daily and 20 mg on alternate days) was found to be the most effective statin at reducing LDL-C when compared with atorvastatin (40 mg) daily. In other words, rosuvastatin at its lowest dose in this study (20 mg) on alternate days was more effective at reducing LDL-C levels than atorvastatin at their higher dose (40 mg) daily. Our results are consistent with STELLAR trial which is one of the major open-label, randomized, and multicenter trials to compare rosuvastatin (10, 20, 40, or 80 mg) with atorvastatin (10, 20, 40, or 80 mg), pravastatin (10, 20, or 40 mg), and simvastatin (10, 20, 40, or 80 mg) across dose ranges for reduction of LDL-C<sup>13</sup>. The results of the STELLAR trial revealed that rosuvastatin was consistently, across all doses, the most effective at reducing LDL-C levels in comparison to all of the other statins. (10)

Brunzell JD et al reported the lowering of triglycerides is another important goal in reducing CVD risk among diabetic patients.<sup>5</sup> In the present study, the greatest reduction in triglycerides was (-17.3%,  $P < 0.01$ ) and was achieved by patients taking rosuvastatin (20 mg daily). This was the case, even in comparison with rosuvastatin 20 mg on alternate days and to higher doses of atorvastatin (40 mg). However, it is important to note that rosuvastatin (20 mg on alternate days) and atorvastatin (40 mg) both achieved the second highest reduction in triglycerides (-15.83%,  $P < 0.05$ , and -14.71%,  $P < 0.05$ ), respectively. These findings are similar to the majority of studies in the literature, which have shown a slightly higher reduction in triglycerides in patients taking rosuvastatin in comparison to atorvastatin as reported by Clearfield MB et al.<sup>14</sup>. It thus appears that, reduction in triglyceride levels is equal with rosuvastatin and atorvastatin in relation to this factor (triglycerides), and that both rosuvastatin and atorvastatin are effective in reducing it.

Raising HDL-C levels is another major factor known to reduce CVD risk. In the present study, all of the statins were found to increase HDL-C levels as has been shown in previous studies. Rosuvastatin (20 mg daily) led to maximal increase (+8.17%). (10)

## V. Conclusion

Rosuvastatin 20 mg on every other regimen had equal effect when compared to daily dose regimen of atorvastatin 40 mg & rosuvastatin 20mg.

## References

- [1]. National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) Third report of the national cholesterol education (8)
- [2]. program (NCEP) expert panel on detection, evaluation, and treatment of high blood cholesterol in adults (adult treatment panel III) final report. *Circulation*. 2002;106(25, article 3143).
- [3]. Bener A, Zirir M, Janahi IM, Al-Hamaq AOAA, Musallam M, Wareham NJ. Prevalence of diagnosed and undiagnosed diabetes mellitus and its risk factors in a population-based study of Qatar. *Diabetes Research and Clinical Practice*. 2009;84(1):99-106.
- [4]. Bener A, Zirir M, Musallam M, Khader YS, Al-Hamaq AOAA. Prevalence of metabolic syndrome according to adult treatment panel III and international diabetes federation criteria: a population-based study. *Metabolic Syndrome and Related Disorders*. 2009;7(3):221-230
- [5]. Bener A, Dafeeh E, Ghuloum S, Al-Hamaq AOAA. Association between psychological distress and gastrointestinal symptoms in type 2 diabetes mellitus. *World Journal of Diabetes*. 2012;3(6):123-129
- [6]. Brunzell JD, Davidson M, Furberg CD, et al. Lipoprotein management in patients with cardiometabolic risk: consensus statement from the American diabetes association and the American college of cardiology foundation. *Diabetes Care*. 2008;31(4):811-822
- [7].
- [8].

- [9]. Colhoun HM, Betteridge DJ, Durrington PN, et al. Primary prevention of cardiovascular disease with atorvastatin in type 2 diabetes in the collaborative atorvastatin diabetes study (CARDS): multi centre trial. *The Lancet*. 2004; 364(9435) :685–696.
- [10]. Shepherd J, Barter P, Carmena R, et al. Effect of lowering LDL cholesterol substantially below currently recommended levels in patients with coronary heart disease and diabetes: the treating To new targets (TNT) study. *Diabetes Care*. 2006;29(6):1220–1226.
- [11]. American Diabetes Association. Standards of medical care in diabetes. *Diabetes Care*. 2009;32(supplement 1):S13–S61.
- [12]. Henry RR. Preventing cardiovascular complications of type 2 diabetes: focus on lipid management. *Clinical Diabetes*.
- [13]. Jones PH, Davidson MH, Stein EA, et al. Comparison of the efficacy and safety of rosuvastatin versus atorvastatin, simvastatin, and pravastatin across doses (STELLAR\* trial) *American Journal of Cardiology*.2003;92(2):152–160.
- [14]. Group EUROASPIREIIS: Lifestyle and risk management and use of drug therapies in coronary patients from 15 countries.
- [15]. Principal results from EUROASPIRE II. *Eur Heart J* 2001,22:554-572.
- [16]. Schuster H, Barter PJ, Cheung RC, Bonnet J, Morrell JM, Watkins C, Kallend D, Raza A, for the MERCURY I Study Group: Effects of switching statins on achievement of lipid goals: Measuring Effective Reductions in cholesterol
- [17]. Using Rosuvastatin Therapy (MERCURY I) study. *Am Heart J* 2004,147:705-713.
- [18]. Pharmaceutical Management Agency. Prescription for pharmacoeconomic analysis: methods for cost-utility analysis. (8)

Eliyin, et. al. “Determinants of Red Cherry Coffee Prices at Asa Coffee Central Aceh.” *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)*, 15(01), 2022, pp. 08-15.