

# Green Kampung Kopi Arabica Gayo Farmers: The Role Of Empowerment Effectiveness, Entrepreneurial Behavior And Productive Performance Of Coffee Farmers

A Hadi Arifin<sup>1\*</sup>, Hendra Raza<sup>2</sup>, Faisal Matriadi<sup>3</sup>, Sulaiman<sup>4</sup>

<sup>1\*,2,3</sup>Malikussaleh University, Indonesia

<sup>4</sup>Universitas Almuslim, Indonesia

**Citation:** A Hadi Arifin et al. (2024) Green Kampung Kopi Arabica Gayo Farmers: The Role Of Empowerment Effectiveness, Entrepreneurial Behavior And Productive Performance Of Coffee Farmers, *Educational Administration: Theory and Practice*, 30(11) 863 - 872

Doi: 10.53555/kuey.v30i11.8006

## ARTICLE INFO

## ABSTRACT

The sustainability of green Kampung Kopi is still influenced by the rate of empowerment effectiveness, the intensity of entrepreneurial behavior, and the productive performance of gayo arabica coffee farmers, to be able to meet market demand for the production of specialty, superior, different-tasting arabica coffee, and the type according to consumer tastes. This research was conducted on gayo arabica coffee farmers in Bener Meriah Regency, through a purposive sampling approach for 200 respondents. The structural equation modeling analysis technique was used to test the hypothesis. The results found a significant influence between the rate of empowerment effectiveness and the intensity of entrepreneurial behavior to improve the productive performance of environmentally friendly farmers, resulting in the growth of Green Kampung Kopi as a complementary mediating forum for arabica coffee farmers. The strategic step that needs to be developed is to build an integrated and sustainable strategy for gayo arabica coffee farmers' green Kampung Kopi, by strengthening the strategy of the effectiveness rate of empowerment and the intensity of entrepreneurial behavior to improve the performance of environmentally friendly farmers, so that the Green Kampung Kopi grows as a complementary mediation center.

**Keywords:** Green Kampung Kopi, Empowerment Effectiveness; Entrepreneurial Behavior; Productive Performance

## I. Background

The largest producer of gayo arabica coffee in Aceh province is spread across the districts of Bener Meriah and Central Aceh with coffee plantation areas in these two districts reaching 80% (96 thousand hectares) of the total coffee land area in Aceh Province of 121 thousand hectares (BPS Aceh Province, 2023). The existing coffee plantations are all smallholder plantations with the number of farmers reaching 77 thousand family heads (Aceh Agriculture and Plantation Office, 2023), who have managed family land sustainably for generations. Gayo Arabica coffee can grow in mountainous areas at land elevations up to 900-1700 m (above sea level), with regional temperatures ranging from 15-24°C (Tona et al., 2023), and at rainfalls ranging from 2000-4000 mm per year, with sufficient soil nutrients before planting (Arvi et al., 2020). Global climate change (Pham et al., 2019), characterized by rising temperatures, rainfall variability, increasing extreme climate events (Ainurrohman & Sudarti, 2022), and coffee berry borer attacks (Arifianto & Ismail, 2023), can affect the decline of arabica coffee production (Purba et al., 2019).

The sustainability of green Kampung Kopi (Prabawati, 2022) gayo arabica, has an effective relationship between productive performance, empowerment effectiveness, and entrepreneurial behavior (Zainura & Kusnadi, 2016), which influence each other and become the main key to the success of the green Kampung Kopi model (Razaq, 2023) in the gayo arabica coffee sector. Productive performance reflects how effective coffee farmers are in producing high-quality coffee with sustainable practices (Maniriho et al., 2021). Productive performance is not only measured by the amount of production but also by how farmers can increase yields efficiently without damaging the environment, by producing organic arabica coffee and environmentally friendly coffee powder (Astuti et al., 2022), which synergizes between increasing farmers'

technical capacity and applying sustainability principles in coffee land management (Sarirahayu & Aprianingsih, 2018).

The effectiveness of Gayo Arabica Coffee Farmer Empowerment efforts to improve knowledge, skills, access to technology, and support in coffee business management (Sumarti & Falatehan, 2017). In Green Kampung Kopi, the effectiveness of empowerment includes farmers needing training in the use of green farming techniques (Ramírez Aristizábal et al., 2021), and crop diversification to make it easier for farmers to obtain appropriate technology that supports environmentally friendly production and provides access to the capital needed to invest (Rugerinyange & Buyinza, 2023), as well as strengthening cooperatives or farmer groups that can become a more organized empowerment platform, where farmers work together to gain access to international markets. Without adequate empowerment, farmers will find it difficult to adapt to the demands of green Kampung Kopi (Qomar et al., 2020).

Entrepreneurial behavior includes innovation, risk-taking, adaptation to change (Drucker, 2002), and the ability to see new market opportunities (Martauli, 2020). In Green Kampung Kopi, entrepreneurial behavior is essential for product innovation (Barzola Iza & Dentoni, 2020). Entrepreneurial farmers will create value-added products such as organic coffee, premium coffee, or derivative products with environmentally friendly packaging. Adaptation to the green coffee market, is growing, and will more proactively seek ways to meet market demand (Verburg et al., 2019). In addition, it allows farmers to diversify their business, by utilizing coffee waste for biogas or organic fertilizer, thereby reducing environmental impact and increasing income. Farmers will tend to stagnate if they only rely on traditional practices that may not support sustainability. In contrast, innovative farmers will adapt more quickly and take advantage of opportunities in Green Kampung Kopi (Ketut Ribek & Rihayana, 2019).

The high and sustainable performance will strengthen the economic position of Arabica coffee farmers in the global market (Anhar et al., 2021) while supporting the overall green Kampung Kopi concept. Empowerment effectiveness directly affects farmers' entrepreneurial behavior. With good education and access to technology, farmers will be more ready to take risks and innovate (Zylbersztajn et al., 2019). Entrepreneurial behavior will affect productive performance. Farmers who dare to innovate tend to look for new ways that are more efficient and environmentally friendly to increase production according to consumer tastes.

## II. Literature Review

### Green Village Arabica Coffee

The United Nations Environment Programme (UNEP) report, entitled *Towards a Green Economy*, defines a Green Economy as an economic concept that is able to improve welfare and social justice (Neilson, 2013). There are three things that need to be noted in this concept, namely low carbon (Karim et al., 2023), socially inclusive, and resource-efficient (Iskandar & Aqbar, 2019).

Green Economy Coffee, which is referred to in this study, is a green Kampung Kopi which is a variety of coffee management activities from upstream to downstream (Harahap et al., 2021) in green nuances, starting from cultivation, picking, sorting, drying, roasting and packing to the market, with the quality of gayo arabica coffee production increasingly favored, which is managed sustainably, environmentally friendly and welfare (Jaya et al., 2020), Which becomes a green coffee village with indicators, namely green coffee plantations, green coffee houses, green forests around coffee plantations, green coffee quality, reduced carbon emissions, reduced use of medicines, and green coffee business chains.

In green KampungKopi, it should bring about sustainable coffee production that is beneficial to be able to improve the productive performance of their coffee crops, while maintaining environmental balance (Parajuli & Heek, 2016), by reducing the need for fertilizers, pesticides, and water, and reducing greenhouse gas emissions and water pollution (Nguyen & Drakou, 2021), while significantly reducing the risk of environmental damage (Razaq, 2023).

More importantly, sustainable coffee production practices can provide farmers welfare and improve their quality of life over time (Irawan, 2023), thus creating an eco-friendly life. Coffee farmers, who have the ability and strategic advantage to process coffee into more flavorful, distinctive, and innovative flavors (Fadhil et al., 2017; Anhar et al., 2021), so that they can contribute to the improvement of their welfare in a sustainable manner.

### Entrepreneurial Behavior

Entrepreneurship is a mental attitude and spirit that is always active, creative, empowered, creative, creative and unpretentious in trying to increase income in its business activities or gait (Sudaryono et al., 2011). A person who has an entrepreneurial spirit and attitude is always dissatisfied with what he has achieved (Widiastuti, 2022). From time to time, day to day, week to week, he is always looking for opportunities to improve his business and life (Tenriawaru et al., 2020). He always creates and innovates without stopping, because by creating and innovating all opportunities can be obtained (Sudaryono et al., 2011).

Meanwhile, an entrepreneur according to Joseph Schumpeter (1934) is an innovator who implements changes in the market through new combinations. The new combination can be in the form of introducing new products, introducing new production methods, opening new markets, obtaining new sources of supply of new materials or components, and running a new organization in an industry (Śledzik, 2013).

Entrepreneurship indicators according to (Wahidmurni, 2019) are independent; creative; risk-taking; action-oriented; leadership; hard work; concept; and skills. According to (Indarto, 2020; Bustan, 2016), the indicators of entrepreneurship are long-term goal focus; having many ideas; persevering; daring to take risks; being able to see opportunities; having competence; have confidence in success.

### **Empowerment**

Empowerment is an activity of putting workers in charge of what they do to provide autonomy, authority (Dzakiroh et al., 2021), and trust to each individual in an organization (Hasdiansyah et al., 2021), as well as encouraging them to be creative to complete their tasks as well as possible (Suparyadi, 2015). Empowerment is a process to make people more empowered (Nainggolan; et al., 2020) and more capable of solving their problems, by giving trust and authority to foster a sense of responsibility (Luthans, F, 2011). Empowerment can encourage individuals to be more involved in decision-making in various organizational activities. The concept of empowerment emphasizes that individuals gain sufficient skills, knowledge, and power to influence their lives and the lives of others they care about (Mustika, 2016).

In essence, to measure empowerment, indicators are needed. According to (Luthans, F, 2011), indicators of empowerment are participation, innovation, access to information, and accountability. Meanwhile, according to (Hasibuan, 2014) empowerment indicators are loyalty, work performance, honesty, discipline, creativity, cooperation, leadership, personality, initiative, skills, and responsibility.

### **Productive Performance**

The productive performance of individuals at work can be measured by their activities using a certain formula (Bin, 2016). According to (Bernadin & Russel, 2013; Colquitt et al., 2011) performance is the recording of results. Productive performance of coffee farmers is all the activities of Arabica coffee farmers by utilizing coffee plants that are owned to grow fertile to picking, drying, roasting, powder processing, and packing until selling them to the market to get real income (Martauli, 2020).

Performance measurement According to (Wibowo, 2014) there are seven indicators that can be used for coffee farmers, namely goals; standards; feedback; ways; competence; motives; and opportunities. Meanwhile, Bernardin & Russel (2013) explain six indicators to measure performance, namely: quality, quantity, timeliness, effectiveness, supervision, and interpersonal.

## **III. Conceptual Framework and Research Hypotheses**

Green Kampung Kopi is an area of the coffee management process from upstream to downstream in green nuances (Parajuli & Heek, 2016), with all forms of activities with green nuances, starting from cultivation, picking, sorting, drying, roasting and packing, to develop the quality of environmentally friendly gayo arabica coffee production which is increasingly favored by consumers (Harahap et al., 2021) in a sustainable manner in improving the productive performance and welfare of coffee farmers following the concept of green economy (Jaya et al., 2020).

The productive performance of coffee farmers is influenced by the effectiveness of empowerment, entrepreneurial behavior, and Green Kampung Kopi (Kasmita et al., 2021; Hapsari et al., 2014). Other research findings show that empowerment effectiveness has a significant effect on the productive performance of rice farmers (Sufi, 2019; Sumarti & Falatehan, 2017). Furthermore, the results of other empirical research findings put forward by ((Zainura & Kusnadi, 2016; Hariance et al., 2020) that the characteristics of green kampung coffee farmers can affect the effectiveness of empowerment in entrepreneurial behavior.

Green Kampung Kopi (Slee Bill, 2020; Kadave et al., 2012)) and productive performance of coffee farmers can be related to empowerment variables (Apsari et al., 2017), and entrepreneurial behavior (Martauli, 2020). Some research findings on coffee put forward by (Manyise et al., 2023; Arifin et al., 2022), that improving the productive performance of coffee farmers requires changes in entrepreneurial behavior and empowerment intensity. The results of other research findings, that the influence of Green Kampung Kopi (Tilden et al., 2023), empowerment intensity (Ramírez Aristizábal et al., 2021), and entrepreneurial behavior are related to the transformation of productive performance of gayo coffee farmers (Widiastuti, 2022).

The results of theoretical and empirical studies show that there is a positive and significant relationship between the effectiveness of empowerment and the transformation of the productive performance of Arabica coffee farmers. The findings of this study are in line with those put forward by (Dzakiroh et al., 2021; Hasdiansyah et al., 2021). The results of theoretical and empirical studies state that there is a positive and significant relationship between entrepreneurial behavior and the productive performance of coffee farmers. The results of this study are in line with the results of research developed by (Radipere & Ladzani, 2014; Martauli & Siahaan, 2019).

There is a positive and significant relationship between empowerment effectiveness and Green Kampung Kopi, this can be explained by the research findings developed by (Parajuli & Heek, 2016; Made et al.,

2022). There is a positive and significant relationship between empowerment effectiveness and green Kampung Kopi, this can be explained by the research findings developed by (Wahyuni et al., 2022; Dedy Darmansyah et al., 2023). There is a positive and significant relationship between green Kampung Kopi and farmers' productive performance. This relationship can be explained by the research findings developed by (Kadave et al., 2012; Slee Bill, 2020; Parajuli&Heek, 2016).

Based on the background description, theoretical review, and research conceptual framework stated above, the problems in this study can be formulated as follows: how is the relationship between empowerment effectiveness and entrepreneurial behavior of coffee farmers related to green environmentally friendly coffee villages; and how is the relationship between empowerment effectiveness and entrepreneurial behavior of coffee farmers with the productive performance of coffee farmers, so that the following hypotheses can be formulated: 1. empowerment effectiveness (H1) entrepreneurial behavior (H2) has a significant effect on green Kampung Kopi arabica; 2. empowerment effectiveness (H3) entrepreneurial behavior (H4) has a significant effect on the productive performance of arabica coffee farmers; 3. Green Kampung Kopi (H5) has a significant effect on the productive performance of coffee farmers; 4. Green Kampung Kopi can mediate the effect of empowerment effectiveness (H6) and (H7) entrepreneurial behavior on the productive performance of coffee farmers.

#### IV. Research Methodology

The population of human resources of coffee farmers with homogeneous criteria for farmer behavior as coffee farmers, limited funds, and according to the opinion of Hair et al. (2010), and taking into account the number of indicators in the model, the sample in this study was 200 people who were taken by purposive sampling for four coffee-producing sub-districts, out of 10 sub-districts in Bener Meriah Regency. Furthermore, in 4 sub-districts, five villages will be determined, with a sample size of 10 coffee farmers in each village.

The research model used in this study is a tiered structure model and to test the proposed hypothesis, the Structural Equation Modeling analysis technique is used, which is operated through the Analysis of Moment Structure program. The structural Equation was formulated as follows:

$$GK = b_1PK + b_2EP + Z_1$$

$$KP = b_1GK + b_2PK + b_3KP + Z_2$$

Notes: GK = Green KampungKopi; PK = Entrepreneurial Behavior; EP = Empowerment Effectiveness; KP = Productive Performance; b1-b3 = Estimation Coefficients (Direct relationship of variables to endogenous variables). With two equations: Z1-Z2; e = error term (residual value). The model estimation technique used is MLE, and the feasibility indices for the model are (Ghozali, 2013; Ferdinand, 2002). Mediating variables are tested through the Sobel Test developed by (Sobel, 1982; Hair et al., 2010; Hayes, 2018).

#### V. Research Results and Discussion

Based on the results of data analysis in the Structural Equation Modeling full model test was conducted on all exogenous and endogenous variables that have been combined into one and whole through the variance and covariance matrix and the full model is also called the research model. To find out the results of data processing that has been done using AMOS can be seen in the following Figure 1.

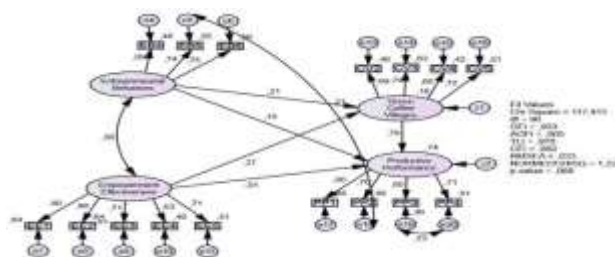


Figure 1. Full Model of Modified Research

After testing the full model structural equation modeling of all exogenous and endogenous variables combined into one and whole through the variance and covariance matrix and the full model, called the full research model. The results of data processing that have been carried out using Amos can be seen in the following table:



Goodness of Fit Index	Cut-off Value	Analysis Result	Model Evaluation
X <sup>2</sup> - Chi-Square	Expected Small	117,415	good
Probability	≥ 0,05	0,068	good
GFI	≥ 0,90	0,933	good
AGFI	≥ 0,90	0,905	good
CFI	≥ 0,95	0,982	good
TAG	≥ 0,95	0,978	good
CMIN/DF	≤ 2	1,223	good
RMSEA	≤ 0,08	0,033	good

The results of the goodness of fit analysis found that after the modifications were made to all the criteria, the values set were all good. Thus the overall research model is a fit.

### Effect of Exogenous Variables on Endogenous Variables

Furthermore, to find out how much influence the exogenous variables (empowerment effectiveness, entrepreneurial behavior) have on intervening variables (Green Kampung Kopi) and endogenous variables (productive performance) are shown in the following table:

**Table 2. Effect of Exogenous Variables on Endogenous Variables**

Variabel exogen & endogen	Estimate	S.E.	C.R.	P
Green Kampung Kopi <--- Empowerment Effectiveness	0,285	0,094	3,041	0,002
Green Kampung Kopi <--- Entrepreneurial Behaviors	0,231	0,100	2,319	0,020
Productive Performance <--- Empowerment Effectiveness	-0,022	0,072	-0,308	0,758
Productive Performance <--- Entrepreneurial Behaviors	0,220	0,078	2,809	0,005
Productive Performance <--- Green Kampung Kopi	0,759	0,105	7,231	0,0001

Based on the results of the data analysis shown in Table 2. it can be stated that all exogenous variables (Entrepreneurial Behaviors) have a significant direct effect on Green Kampung Kopi and Productive Performance. The exogenous variable (Empowerment Effectiveness) has a significant direct effect on Green Kampung Kopi Conversely Empowerment Effectiveness has no significant effect on Productive Performance and Green Kampung Kopi has a significant effect on Productive Performance.

### Influence of Intervening Variables

To determine the effect of mediating variables, you must first see how much the direct effect is an indirect effect and the total effect. Based on tests conducted using Amos, the results in Table 3 are obtained:

**Table 3. Standardized Direct, Indirect & Total Effects**

Categories	Entrepreneurial Behaviors	Empowerment Effectiveness	Green Kampung Kopi	Productive Performance
<b>Standardized Direct Effects</b>				
Green Kampung Kopi	0,218	0,273	0	0
Productive Performance	0,212	-0,022	0,774	0
<b>Standardized Indirect Effects</b>				
Green Kampung Kopi	0	0	0	0
Productive Performance	0,169	0,211	0	0
<b>Standardized Total Effects</b>				
Green Kampung Kopi	0,218	0,273	0	0
Productive Performance	0,381	0,190	0,774	0

Based on Table 3, it is known that the direct effect between Entrepreneurial Behaviors on Green Kampung Kopi is 0.218 and on Productive Performance is 0.212, then the direct effect between Empowerment Effectiveness on Green Kampung Kopi is 0.273 and on Productive Performance is -0.022. Then the direct effect between Entrepreneurial Behaviors on Green Kampung Kopi is 0.218 and on Productive Performance is

0.381. The direct effect between Green Kampung Kopi on Productive Performance is 0.774.

While the indirect effect between the two exogenous variables on endogenous variables, namely between the Entrepreneurial Behaviors variable on Productive Performance of 0.169, and the Empowerment Effectiveness variable on Productive Performance of 0.211. The total effect of the Entrepreneurial Behaviors variable on Green Kampung Kopi is as large as the direct effect of 0.273 while on Productive Performance the total effect is 0.381. The total effect between the influence of Empowerment Effectiveness on Green Kampung Kopi is equal in magnitude to the direct effect of 0.273, while on Productive Performance the total effect is 0.190. While the total influence of the Green Kampung Kopi variable on Productive Performance is 0.774.

### **1. The Influence of Entrepreneurial Behaviors on Green Kampung Kopi**

The results of this study indicate that there is an influence between Entrepreneurial Behaviors on Green Kampung Kopi in Bener Meriah Coffee Farmers, as evidenced by the standardized estimate coefficient or regression weight or gama coefficient of 0.100 with a CR-critical ratio value (identical to the t-count) which is much greater than the minimum required C. R. minimum required of 1.96 amounting to  $(2.319 > 1.96)$  and a probability smaller than the error rate (alpha)  $\alpha = 0.05$  amounting to  $(0.020 < 0.05)$ , thus it can be stated as significant, meaning that if Entrepreneurial Behaviors are effective, then Green Kampung Kopi can fulfill environmentally friendly.

The results of this study strengthen the results of previous research conducted by (Zainura & Kusnadi, 2016); (and Wahyuni et al., 2022) their research examines the effect of Entrepreneurial Behaviors on Green Kampung Kopi, and the results of their research state that Entrepreneurial Behaviors have a positive influence on Green Kampung Kopi. In addition, (Widiastuti, 2022); (Dedy Darmansyah et al., 2023), conducted research on the effect of Entrepreneurial Behaviors on Green Kampung Kopi, the results of their research showed that the Entrepreneurial Behaviors variable had a positive effect on Green Kampung Kopi.

### **2. The Influence of Entrepreneurial Behaviors on Productive Performance**

The results of this study indicate that there is an influence between Entrepreneurial Behaviors on Productive Performance in Bener Meriah Coffee Farmers, as evidenced by the standardized estimate coefficient or regression weight or gama coefficient of 0.078 with a CR-critical ratio value (identical to the t-count) which is much greater than the minimum required C.R. of 1.96 amounting to  $(2.809 > 1.96)$  and a probability smaller than the error rate (alpha)  $\alpha = 0.05$  amounting to  $(0.005 < 0.05)$ , thus it can be stated as significant. This means that if Empowerment Effectiveness increases, it will increase Productive Performance. The results of this study support previous studies such as (Ristijuswati, 2024); (Radipere & Ladzani, 2014) which show that there is a significant influence of Entrepreneurial Behaviors on Productive Performance. Furthermore, other research findings put forward by (Widiastuti, 2022); (Martauli, 2020) there is a significant relationship between Entrepreneurial Behaviors on the Productive Performance of coffee farmers.

### **3. The Influence of Empowerment Effectiveness on Green Kampung Kopi**

The results showed that there was an influence between Empowerment Effectiveness on Green Kampung Kopi in Bener Meriah Coffee Farmers, as evidenced by the standardized estimate coefficient or regression weight or gama coefficient of 0.094 with a CR-critical ratio value (identical to the t-count) which is much greater than the minimum required C.R. of 1.96 of  $(3.041 > 1.96)$  and a probability smaller than the error rate (alpha)  $\alpha = 0.05$  of  $(0.002 < 0.05)$ , thus it can be stated as significant. This means that if Empowerment Effectiveness increases, then Green Kampung Kopi can fulfill environmentally friendly.

The results of this study strengthen the results of previous research conducted by (Apsari et al., 2017); (and Dzakiroh et al., 2021); that Empowerment Effectiveness has a significant effect on Green Kampung Kopi. Furthermore, the results of research findings by (Martauli, 2020); (Wahyuni et al., 2022), show that there is a significant relationship between empowerment effectiveness and Green Kampung Kopi, and even able to increase the income of coffee farmers.

### **4. The Influence of Empowerment Effectiveness on Productive Performance**

The results of this study indicate that there is no effect between Empowerment Effectiveness on Productive Performance in Bener Meriah Coffee Farmers, as evidenced by the standardized estimate coefficient or regression weight or gamma coefficient of 0.072 with a CR-critical ratio value (identical to t-count) which is much smaller than the minimum CR required of 1.96 of  $(-0.308 < 1.96)$  and a probability greater than the error rate (alpha)  $\alpha = 0.05$  of  $(0.758 > 0.05)$ , thus it can be stated as insignificant, which means that Empowerment Effectiveness is not yet effective in increasing Productive Performance. The results of this study are not in line with previous studies developed by (Simon Peter Rugerinyange et al., 2021); (and Ramírez Aristizábal et al., 2021); which state that empowerment effectiveness and productive performance have a significant relationship in developing Arabica coffee production.

### **5. The Influence of Green Kampung Kopi on Productive Performance**

The results of this study indicate that there is an influence between the influence of Green Kampung Kopi on Productive Performance in Bener Meriah Coffee Farmers, as evidenced by the standardized estimate coefficient or regression weight or gamma coefficient of 0.105 with a CR-critical ratio value (identical to t-

count) which is much greater than the minimum CR required of 1.96 of  $(7.231 > 1.96)$  and a probability that is smaller than the error rate ( $\alpha = 0.05$ ) of  $(0.0001 < 0.05)$ , thus it can be stated as significant. This means that if Green Kampung Kopi grows more environmentally friendly, Productive Performance will increase. The findings of this study support previous research developed by (Barzola Iza & Dentoni, 2020); (Iskandar & Aqbar, 2019), stated that Green Kampung Kopi has a significant effect on Productive Performance.

#### **6. Green Kampung Kopi Mediates Entrepreneurial Behaviors and Productive Performance**

The results of testing the mediating variables (intervening) of the relationship between the Entrepreneurial Behaviors variable and the Productive Performance variable mediated by the Green Kampung Kopi variable. The test results refer to the theory of Baron & Kenny (1986) with the Sobel test tool developed by Preacher and Hayes (2004). The calculation was obtained from the Sobel test an interactive calculation tool for mediation tests where the test statistic value obtained a value of 2.090 which is much greater than the minimum C.R required of 1.96 of  $(2.090 > 1.96)$  and a p-value of  $0.036 < 0.05$  and a standard error value of 0.080. The results of the study state that the probability of path C' is significant, so it can be concluded that there is a partial mediation relationship, or in other words, the Green Kampung Kopi variable mediates through complementary partial mediation between Entrepreneurial Behaviors and Productive Performance in Bener Meriah Coffee Farmers.

#### **7. Green Kampung Kopi Mediates Empowerment Effectiveness with Productive Performance**

Productive Performance cannot be indirectly influenced by Empowerment Effectiveness but can be influenced by the Green Kampung Kopi variable. Green Kampung Kopi cannot act as a mediating variable that influences the relationship between Empowerment Effectiveness and Productive Performance, according to the test results referring to the theory of Baron & Kenny (1986) with the Sobel test tool developed by Preacher and Hayes (2004). According to SEM rules, the test cannot be continued because it does not meet the mediation requirements so the seventh hypothesis (H7) is rejected.

### **VI. Conclusion And Recommendation**

#### **Conclusion**

Based on the research objectives that have been described previously, several research conclusions can be put forward as follows:

- a. Entrepreneurial Behaviors have a positive and significant effect on Green Kampung Kopi in Bener Meriah Coffee Farmers, meaning that so far entrepreneurial behavior with education, experience, leadership, and skills, has been able to provide a significant influence on efforts to produce environmentally friendly coffee plants, but still has an impact on the quality of coffee bean or cherry production which is decreasing, because it is also influenced by climate and deforestation.
- b. Entrepreneurial Behaviors have a positive and significant effect on Productive Performance in Bener Meriah Coffee Farmers, meaning that conditions of education, experience, leadership, and skills of coffee farmers, it is able to improve the performance of farmer production to produce quality coffee.
- c. Empowerment Effectiveness has a positive and significant effect on Green Kampung Kopi, meaning that if the effectiveness of farmer empowerment takes place in a planned and scheduled manner with the right target, then the support for empowerment effectiveness can improve the atmosphere of coffee management with an environmentally friendly concept to produce aromatic coffee and a variety of deliciousness.
- d. Green Kampung Kopi can mediate through partial mediation the relationship between Entrepreneurial Behaviors and Productive Performance. This means that environmentally friendly coffee villages as complementary variables can mediate entrepreneurial behavior with the productive performance of coffee farmers so that efforts to build environmentally friendly conditions are increasingly real and effective.
- e. Empowerment Effectiveness does not have a significant effect on Productive Performance, meaning that the less effective farmer empowerment is, the more it reduces the productive performance of coffee farmers, and certain lands are increasingly found to be unmaintained and abandoned, so that they do not have a positive impact on the productive performance of coffee farmers.

#### **Recommendations**

Based on the results of field research by utilizing and analyzing data, along with the conclusions of the research results, the following suggestions can be put forward:

- a. Arabica Gayo coffee has an attraction or gravity to various parts of the world internationally, nationally, and locally, so it is necessary to manage and maintain its existence by building Green Kampung Kopi by utilizing the effectiveness of empowerment and the effectiveness of entrepreneurial behavior continuously to improve the productive performance of environmentally friendly farmers. The strategic step that needs to be developed is to build a green coffee village strategy for Gayo Arabica coffee farmer resources in an integrated and sustainable manner, by strengthening the intensity of coffee farmer empowerment by the local government and utilizing the intensity of farmer entrepreneurial behavior.
- b. In the current upstream-downstream farming management conditions, it is necessary to develop and

adjust to the progress of the concept of environmentally friendly coffee plants, to make empowerment effective through education/training, so that they can become professional farmers, to create final outputs of coffee powder with different flavors, aromas, and types in the form of packages and sachets, according to the tastes of international and domestic consumers, to improve their welfare.

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