Personality Traits, Knowledge, Practice and Logistic with Work Performances as Indicator of Youth Productive Malaysian Cocoa Farmers (YPMCF) Well Being

Winoryantie Sulaiman, Jasmin Ariff Shah & Nurbahiah Muhamed Haris

In-Text Citation: (Sulaiman et al., 2022)
To Cite this Article: Sulaiman, W., Shah, J. A., & Haris, N. M. (2022). Personality Traits, Knowledge, Practice and Logistic with Work Performances as Indicator of Youth Productive Malaysian Cocoa Farmers (YPMCF) Well Being. *International Journal of Academic Research in Business and Social Sciences. 12(13),* 173 - 184.

Full Terms & Conditions of access and use can be found at
http://hrmars.com/index.php/pages/detail/publication-ethics

Personality Traits, Knowledge, Practice and Logistic with Work Performances as Indicator of Youth Productive Malaysian Cocoa Farmers (YPMCF) Well Being

Winoryantie Sulaiman[1,2], Jasmin Ariff Shah[1] & Nurbahiah Muhamed Haris[1]

[1]Faculty of Agriculture, Universiti Putra Malaysia, Serdang Selangor, Malaysia,
[2]Malaysian Cocoa Board, Cocoa Research and Development Centre, Kota Samarahan, Sarawak
Email: winoryantie2019@gmail.com

Abstract
Community wellbeing is depends on individual levels of people who belong to the community and also on research purpose and interest. Work performance of cocoa farmers has played a significant role in contributing cocoa production in Malaysia since 2006. The low production was reported due to the low productivity of cocoa beans produced by the farmers. Productivity in 2020 was 0.19 tonne, which means 38% achieved from the expected outcome. Cocoa farmers play significant roles in determining the high yield of their cocoa farm. Youth involvement in agriculture sector especially cocoa plantation is a crucial challenge not only in Malaysia but also worldwide. To achieve the sustainable improvement on cocoa production, there is a need to find the factors that influence the existing Youth Productive Malaysian Cocoa Farmers (YPMCF) performances. Therefore, the objectives of this article are i) To determine the level of Personality Traits, Knowledge, Practice and Logistic and work performances ii) To determine the relationship between Personality Traits, Knowledge, Practice and Logistic with work performances of YPMCF iii) To determine the most influential factors (IVs) toward work performances of YPMCF. This study driven from Iceberg Model. A total number of 40 YPMCF were involved in this purposive data collection which are only 11.46% from the samples population. Data analyses have been conducted using IBM SPSS Software. Results found that only decision and discipline produce high level indicator, and all the variables showed the positive and strong correlation. Factors that contribute to YPMCF work performances are Practice and Logistic.
Keywords: Work Performance, Farmers, Personality Traits, Knowledge, Practice and Logistic

Introduction
Cocoa is one of the major commodity crops in Malaysia after oil palm and rubber, and Malaysia used to be the third producer of dry cocoa beans in South East Asia (ICCO, 2007). However, cocoa production started to decline since the 1990s gradually. Cocoa farmers have

played a significant role in contributing more than 95% of cocoa production in Malaysia since 2006. The low production was reported due to the low productivity of cocoa beans produced by the farmers (MCB, 2020). Productivity in 2020 was 0.19 tonne, which means 38% achieved from the expected outcome. Performance is to produce the expected results by the performer, either an individual or an organization (Nyanza et. al., 2015). Generally, work performance has been conceptualized as the performance of specific dimensions (Hasibuan et al., 2011). The result is achieved by a person who is responsible for carrying out the organization's desired outcome (Hussin et al., 2017) in any activity that they carry out based on his skills, knowledge, experiences (Hasibuan et al., 2011) and individual behaviour. Cocoa farmers play significant roles in determining the high yield of their cocoa farm (Roshidah, 2016; Roshidah, 2017; Norlizah et al., 2017). In order to increase the cocoa production, government through Malaysian Cocoa Board (MCB) spent more expenditure on training and fertilizer to the cocoa farmers. However, the productivity in 2020 was decreased 10% from 2019 productivity.

Community and Individual Wellbeing

Community wellbeing might very depending on research interest and purpose. Community wellbeing is informed from individual levels of wellbeing of people who belong to the community (Sung, 2018). Wellbeing in Rural Vietnam agriculture is when the farmers is happy in terms of self-employments which are involves income and psychological cost (Markussen et. al., 2018). The perception of young urban adults in Malaysia happiness factors are family environments, education, and economic opportunities (Zaremohzzabieh et. al., 2019).

Wellbeing and Work Performance

Khoreva et. al (2018) indicated that i) physical and social employee wellbeing mediates the association between skill and opportunity enhancing Human Resources (HR) practices and in role job performance. Ii) Psychological employee wellbeing partially mediates the association between motivation (HR practices) and innovative job performance.

Problem Statement
Youth Wellbeing in agriculture

Youth involvement in agriculture sector especially cocoa plantation is a crucial challenge not only in Malaysia but also worldwide (MCB, 2020; Mabe, et. al., 2021). Sunday et. al (2015) also mentioned that prolonged economic growth in majority African countries has impact on the well-being of young Africans. As African countries main activities is agriculture, communities in rural area should support youth farmers to get involved in agriculture by providing the land, storage facilities, credit facilities and strengthened more efficient services in terms of formal education. Youth involvement in agriculture can manage the food security issues, extreme poverty, social unrest and other crime issues such as drugs.

Materials and Methods
Respondents Selection, Sampling Technique, Sampling Frame, Size and Data Collection

The population of this study was select from 3,755 PMCF that currently registered under the MCB Development Programme in 2020. PMCF definition for MCB is cocoa farmers that have matured cocoa tree that already produced cocoa yield. The random sampling technique was used as the sampling process in which the population was divided into regional and then divided into the zoning area. Raosoft Calculator Software was used to determine the number

of region samples. A total number of 349 respondents were evaluated which were 66 respondents from Peninsular Malaysia, 90 respondents from Sarawak and 193 respondents from Sabah. The structured questionnaires were developed and verified by the MCB's expert on the related field. A pilot test was carried out with a selection of 35 farmers as respondents for each region. For the pilot test and actual data collection, the researcher employed Google Form and hardcopy form to collect the data. The method to collect the data was also through by face to face, online video call and telephone call. For this articles, the purposive sampling for Youth PMCF (YMPCF) respondents which the age range are between 15-41 years old were selected. The total number of youth respondents is 40 which are 11.46% from the sample population.

Development of Questionnaire Design
Structured questionnaires have been adopted and developed on the recent status of work performances among YPMCF. The process of questionnaire adapted and development was divided into four phases of development, pilot test, reliability test and validation phases. Some modifications from the existing questionnaire have been done to suit the study requirement. The questionnaires consisted of structured open and closed-ended questions and interval level questions (more than two choices of answers). The questionnaire forms were divided into four (4) sections of A. Profile of respondents, B. Profile of the cocoa farm, C. Independent variables – Personality Traits (Discipline, Ability to take the risk, Networking, Problem-solving, Investment, Information seeker, Decision making), Knowledge, Practice and Logistic. D. Dependent Variables - Work Performance.

Statistical Analysis
The data for all parameters were analysed using IBM SPSS version 25.0. Descriptive analysis was used to describe the characteristics of the variables in terms of the frequencies and the percentage. Correlation analysis was used to determine the relationship between the independent and dependent variables. Regression analysis was used to determine the most important independent variable that influences the work performances among YPMCF.

Results and Discussion
Demographic Characteristic
The demographic of respondents is important data to provide the subject of unit analysis context in terms of the scope of work performance.

Table 1
Demographic of Youth Productive Malaysian Cocoa Farmers (YMPCF)

		Frequency	**Percent**
Region	Peninsular	15.00	37.50
	Sabah	21.00	52.50
	Sarawak	4.00	10.00
Age (years)	25	1	2.5
	27	2	5.0
	30	2	5.0
	31	2	5.0
	32	5	12.5
	33	2	5.0
	34	1	2.5
	35	1	2.5
	36	2	5.0
	37	9	22.5
	38	4	10.0
	39	4	10.0
	40	4	10.0
	41	1	2.5
Gender	Men	32.00	80.00
	Women	8.00	20.00
Education level	Secondary	16.00	40.00
	Primary	22.00	55.00
	Certificate	1.00	2.50
	Diploma	1.00	2.50
Household Income (RM)	350-750	15.00	37.50
	>750 - 1000	15.00	37.50
	>1000-1250	6.00	15.00
	>1250 - 1500	1.00	2.50
	> 1500 - 2000	2.00	5.00
	>2000	1.00	2.50
Types of cocoa farmers	Full time	7.00	17.50
	Part time	33.00	82.50
Communication Accommodation	Home Internet	5.00	12.50
	Home telephone	40.00	100.00
	Smart phone	19.00	47.50
Years of involvement in cocoa planting (year)	4y	3.00	7.5
	5y	6.00	15.0
	6y	9.00	22.5
	7y	4.00	10.0
	8y	1.00	2.5
	9y	4.00	10.0
	10y	3.00	7.5

	11y	1.00	2.5
	12y	4.00	10.0
	13y	4.00	10.5
	14y	1.00	2.50
Types of land	Rent	23.00	57.50
	Owner	17.00	42.50
Route to cocoa farm	Tar	13.00	32.50
	Off road (Gravel)	20.00	50.00
	Off road (Top soil)	16.00	40.00
	Off road (Hilly)	17.00	42.50
	Off road (River)	1.00	2.50
Men power	Self	36.00	90.00
	Family	22.00	55.00
	Labour	2.00	5.00

From Table 1, we can see that majority YPMCF are from Sabah region, follow by Peninsular and Sarawak which are 52.75%, 27.5% and 10% respectively. The data of respondents' demographic profile showed that all of them are aged between 25 to 41 years old, with those aged 37 years old (22.5%) took the lead. Majority of them are male respondents with grand total of 32 (80.0%), which left only 8 (20.0%) of them are females. Most of the respondent did received secondary school (55%) and primary school (40%) while the other 2% further their study in higher level. In terms of cocoa farming, 33 (82.5%) out of 40 of them are part time farmers, and most of them have the experience in this field for 6 years (22.5%). All of these findings were supported as the factor that contributed to farmers work performances. Elias et al (2013) found that the farmers performance is decrease when the farmer age is increase. Richard et al (2014) found that farm experiences and poor road access to the farm (Nnadi et.al., 2012) also contribute to the farmers work performances.

Descriptive Analysis for Variables Level

To evaluate the levels of the variables, a descriptive analysis was conducted to determine the results as shown in Table 2. The level of variables namely Personality Traits, Knowledge, Practice, Logistic and Work Performances were based on three level viz low (1-2.699), moderate (2.67-4.339) and high (4.34-6).

Table 2
Level of independent and dependent variables

Variables	Mean	Standard Deviation	Frequency (%)			Levels
			Low	Moderate	High	
Work performance	3.509	0.828	12.500	70.000	17.500	Moderate
Personality Traits	3.711	0.877	7.500	62.500	30.000	Moderate
Able to take risk	3.993	0.890	7.500	57.500	35.000	Moderate
Information seeker	3.72	1.032	15.000	57.500	27.500	Moderate
Problem solver	3.775	1.037	20.000	47.500	32.500	Moderate
Decision making	4.523	1.029	7.500	40.000	52.500	High
Willingness to invest	3.247	1.102	47.500	42.500	10.000	Moderate
Networking	3.254	1.105	35.000	50.000	15.000	Moderate
Discipline	4.579	0.856	2.500	30.000	67.500	High
Knowledge	4.291	1.030	5.000	47.500	47.500	Moderate
Practice	4.291	0.983	7.500	45.000	47.500	Moderate
Logistic	3.701	0.824	20.000	52.500	27.500	Moderate
Location	4.141	0.937		52.500	47.500	Moderate
Infrastructure	3.604	0.829	12.500	70.000	17.500	Moderate
Transportation	3.375	0.899	27.500	67.500	5.000	Moderate

Based on the results as shown in Table 2, it revealed that one level (high) is identified in Decision making (Mean±SD=4.523±1.029) and Discipline (Mean±SD=4.579±0.856). The results that showed moderate level were Personality Traits (Mean±SD=3.711±0.877), Abilty to take risk (Mean±SD=3.993±0.890), Networking (Mean±SD=3.254±1.105), Problem Solving (Mean±SD=3.775±1.037), Investment (Mean±SD=3.247±1.102), Information seeker (Mean±SD=3.718±1.032), Logistic (Mean±SD=3.701,±0.824), Knowledge (Mean±SD=4.291±1.030), Practice (Mean±SD=4.291±0.983). Location (Mean±SD=4.141±0.937), Infrastructure (Mean±SD=3.604±0.829) and Transportation (Mean±SD=3.375±0.899). While PMCF work performances indicate moderate level (Mean±SD=3.509±, 0.828). The result was supported by previous study that also found high level in Decision Making (Mustafa, 2017; Pakri, 2017), and Discipline (Jihan, 2019; Kurniawan & Heryanto, 2019).

Correlation Analysis for Relationship between Independent and Dependent Variables
The correlation analysis was conducted to reveal the relationships between Personality Traits (Discipline, Ability to take the risk, Networking, Problem-solving, Investment, Information seeker, and Decision making), Knowledge, Practice, and Logistic (Location, Infrastructure, and Transportation) with Work Performance among respondents. Based on Mukaka (2012), they're five (5) rule of thumb for interpreting the size of correlation as shown in Table 3 and the result of the correlation analysis is shown in Table 4.

Table 3
Rule of thumb for interpreting the size of correlation (Mukaka, 2012)

Size of correlation	Types of correlation
0.90 to 1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
0.70 to 0.90 (-0.70 to -0.90)	High positive (negative) correlation
0.50 to 0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00 to 0.30 (-0.00 to -0.30)	Negligible positive (negative) correlation

Table 4: Correlation analysis for relationship between independent and dependent variables

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	Y
X1	1	0.694**	0.883**	0.878**	0.805**	0.884**	0.884**	0.705**	0.727**	0.744**	0.773**	0.782**	0.613**	0.778**	**0.705**
X2		1	0.448**	0.412**	0.797**	0.510**	0.425	0.684	0.744	0.779	0.676	0.666	0.626	0.589	**0.742**
X3			1	0.779**	0.550**	0.797**	0.836**	0.495**	0.528**	0.535**	0.589**	0.597**	0.615**	0.431**	**0.412**
X4				1	0.677**	0.710**	0.798**	0.622**	0.576**	0.594**	0.574**	0.597**	0.615**	0.391**	**0.475**
X5					1	0.572**	0.510**	0.775**	0.853**	0.830**	0.735**	0.807**	0.692**	0.544**	**0.710**
X6						1	0.828**	0.548**	0.566**	0.582**	0.739**	0.661**	0.724**	0.674**	**0.660**
X7							1	0.461**	0.443**	0.479**	0.625**	0.592**	0.674**	0.481**	**0.589**
X8								1	0.828**	0.902**	0.644**	0.683**	0.605**	0.501**	**0.667**
X9									1	0.927**	0.816**	0.850**	0.724**	0.691**	**0.739**
X10										1	0.753**	0.787**	0.695**	0.611**	**0.776**
X11											1	0.916**	0.949**	0.921**	**0.885**
X12												1	0.814**	0.726**	**0.752**
X13													1	0.841**	**0.816**
X14														1	**0.816**
Y															1

** Correlation is significant at the 0.01 level (2-tailed).

From Table 4, we found that all the variables are significantly correlated with work performances, including the sub variables, with the strength of those correlations are ranged between moderate to strong or high positive correlation. Specifically, Work Performance was found to be positively correlated to Personality Traits (r=.705, p=.000), as well as its sub variables, which are Discipline (r=.667, p=.000), Ability to take the risk (r=.742, p=.000), Networking (r=.589, p=.000), Problem-solving (r=.475, p=.002), Investment (r=.660, p=.000), Information seeker (r=.412, p=.008), and Decision making (r=.710, p=.000). In addition, Work Performance was also had strong and positive correlations with Knowledge (r=.739, p=.000), Practice (r=.776, p=.000), and Logistic (r=.855, p=.000) (including its subvariables, Location (r=.752, p=.000), Infrastructure (r=.816, p=.000), and Transportation (r=.705, p=.000) as the Pearson's r is close to 1.

All variables namely Personality Traits, Knowledge, Practice and Logistic were found highly positive relationship towards Work Performance. These results were supported by Mohamad

(2019) for practices and Miguel et al, (2019) for Logistic. Meanwhile sub-variables namely able to take risk, decision making, location, infrastructure and transportation were found highly positive relationship towards Work Performance. These findings were in line with (Demba, 2017; Hassan et al., 2017; Miguel et al., 2019).

Correlation Analysis for Relationship between Independent and Dependent Variables
The multiple regression analysis was conducted to determine the most influential factors of independent variables towards work performances of PMCF. The results of the multiple regression analysis for sub variables are shown in Table 5 and 6.

Table 5
Model Summary for sub-variables

R	R Square	Adjusted R Square	Std. Error of the Estimate	df	F
.959[a]	0.920	0.884	0.25913	12	25.822

Table 6
Estimated coefficient for work performance model

	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	0.655	0.289	2.262	0.032
Ability to take the risk	0.035	0.101	0.352	0.727
Information seeker	-0.353	0.089	-3.943	0.001
Problem-solving	-0.151	0.092	-1.646	0.111
Decision making	0.214	0.121	1.775	0.087
Investment	0.025	0.094	0.265	0.793
Networking	0.410	0.098	4.176	0.000
Discipline	-0.067	0.121	-0.550	0.587
Knowledge	-0.190	0.153	-1.243	0.225
Practice	0.485	0.160	3.031	0.005
Location	-0.424	0.170	-2.493	0.019
Infrastructure	-0.266	0.229	-1.160	0.256

From Table 5, the results of the multiple regression analysis revealed that R=0.959, which is a strong relationship. This suggest our model is a relatively good predictor for the outcome. The Adjust R Square value of 0.884 implies that four predictor explains about 88.4% of the variation in PMCF's work performances. The results indicated that the model was a significant predictor of Work Performance, $F(12,27)=25.822$, $p=0.000$.
Meanwhile, the results of multiple regression analysis was performed to determine which factors or variables affected Work Performance. Based on the results from Table 6, there were four variables/sub variables that significantly influenced work performance. Those variables/sub variables consisted of Information seeker ($\beta=-0.353$, $p=.001$), Networking ($\beta=0.410$, $p=.000$), Practice ($\beta=0.485$, $p=.005$), and Location ($\beta=-0.424$, $p=.019$); with significant level of $p<0.05$. Practice has the highest Beta value which is 0.485. These findings

were partially supported by Nnadi et al (2012); Fadzim et al (2017) for practice. However, Ntawuruhunga et al (2019) did not support.

While for the conclusion and equation model for the multiple regression for the sub-variables:

$$Y = a + b_1X_1 + b_2X_2 \ldots + e$$
$$Y = (0.655) + (0.485 \text{ Practice}) + (-0.42 \text{ Location}) + (0.410 \text{ Networking}) + (-0.353 \text{ Information seeker})$$

Y   : Work performance
a   : Constant (B=0.655)
b_1X_1 : Practice (β=0.485, p=.005)
b_2X_2 : Location (β=-0.424, p=.019
b_3X_3 : Networking (β=0.410, p=.000)
b_4X_4 : Information seeker (β=-0.353, p=.001)

As for the variables, the results of the multiple regression analysis are shown in Table 7 and 8 as below.

Table 7
Model Summary for variables

R	R Square	Adjusted R Square	Std. Error of the Estimate	df	F
.894[a]	0.799	0.776	0.36074	4	34.705

Table 6
Estimated coefficient for work performance model

	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	0.304	0.284	1.071	0.292
Personality Traits	-0.051	0.114	-0.444	0.66
Knowledge	-0.375	0.172	-2.186	0.036
Practice	0.537	0.166	3.24	0.003
Logistic	0.732	0.139	5.274	0.000

From Table 7, the results of the multiple regression analysis revealed that R=0.894, which is a strong relationship. This suggest our model is a relatively good predictor for the outcome. The Adjust R Square value of 0.776 implies that two predictor explains about 77.6% of the variation in PMCF's work performances. The results indicated that the model was a significant predictor of Work Performance, F(4,3)=34.705, p=0.000.
Meanwhile, the results of multiple regression analysis was performed to determine which factors or variables affected Work Performance. Based on the results from Table 6, there were two variables that significantly influenced work performance. Those variables consisted of Logistic (β=0.732, p=.000) and Practice (β=0.537, p=.003); with significant level of p<0.05. Logistic has the highest Beta value which is 0.732. These findings were partially supported by

Nnadi et al (2012); Fadzim et al (2017) for practice. However, Ntawuruhunga et al (2019) did not support.

Which means, only main predictor or variables Practice and Logistic were found significantly influenced work performance with the equation model of multiples regression for the variables as the conclusion as below:

$$Y = a + b_1X_1 + b_2X_2 \dots + e$$
$$Y = (0.304) + (0.732 \text{ Logistic}) + (0.537 \text{ Practice})$$

Y   : Work performance
a   : Constant (B=0.304)
b_1X_1 : Logistic (β=0.732, p=.000)
b_2X_2 : Practice (β=0.537, p=.003)

Conclusions
This study was conducted with the aimed to determine: the level of all the variables involved; the relationships between personality traits (discipline, ability to take the risk, networking, problem-solving, investment, information seeker, and decision making), knowledge, practice, and logistic (location, infrastructure, and transportation) with work performance; as well as the variables that influenced work performance the most. The findings showed that Decision Making and Discipline, indicate high level. The relationships between personality traits, knowledge, practice, and logistic with work performance are strong and positive correlated. Besides, only two out of seven factors of personality traits (information seeker and networking) and one out of three factors of logistic (location), are found to have significant effect on work performance; other than practice. This paper is expected to contribute into the research gap in regards of the topic being studied especially among young farmers in Malaysia, in addition to the encouragement for future research to investigate similar objectives in different settings.

Future Study
Suggestion for the future study are i) comparison among youth and others generation PMCF ii) study on an external factor that also contributes to the YPMCF work performances, such as extension agent Personality Trait, Organizational Support and Market Support System and Environment Factor.

References
Demba, S. (2017). *Personality Traits and Work Performance of Paddy Farmers in the Central River Region, Gambia*. A Master of Science thesis, Universiti Putra Malaysia. Retrieved from: http://psasir.upm.edu.my/id/eprint/68775/.

Hussain, H., & Mohtar, S. (2017). Person Job-Fit and Job Performance Among Non-Governmental Organization Workers: A Conceptual Framework. *International Journal of Accounting, Funance and Business*

Fadzim, W. R., Aziz, M. I. A., Mat, S. H. C., & Maamor, S. (2016). *Determinants of Technical Efficiency among Smallholders Cocoa Farmer in Malaysia.* The European Proceedings of Social & Behavioural Sciences.

Fadzim, W. R., Aziz, M. I. A., & Abdul Jalil, A. Z. (2017). Determinants of Technical Efficiency of Cocoa Farmers in Malaysia. *International Journal of Supply Chain Management*, *6*(1), 254-258.

Hassan, S., Demba, S., Asmuni, A., & Saikou, E. S. (2017). Impact of personality traits on work performance in tidal paddy production in the Gambia: a review. *IOSR Journal of Agriculture and Veterinary Science*, *10*(11 ver. 1), 16-20.

Khoreva, V., and Wechtler, H. (2018). *HR practices and employee performance: the mediating role of well being.* Employee Relation. Vol. 40. No 2, 2018. Pp. 227-243.

Mabe, F. N., and Danso, G. (2021). *Drivers of youth in cocoa value chain activities in Ghana. Journal of Ahribusiness in Developing and Emerging Economics.* Vol. 11 No. 4, 2021. Pp. 336-378.

Markussen, T., Fibaek, M., Tarp, F., and Tuan, N. D. A. (2018). *The Happy Farmers: Self Employment and Subjective Well Being in Rural Vietnam.* J Haooines Stud (2018) 19: 1613-1636

Nnadi, F. N., Chikare, J., Atoma, C. N., Egwuonwu, H. A., & Echetama, J. A. (2012). Analysis of Factors Influencing Job - Performance of Female Extension Agents in Owerri - West and North Areas of Imo State, Nigeria. *Science Journal of Agricultural Research & Management*. https://doi.org/10.7237/sjarm/252.

Ntawuruhunga, D., Affognon, D. H., Fiaboe, K. K. M., Onyango, M. O. A., Onyango, T. L., and Muriithi, B. W. (2019). *Farmers' knowledge, attitudes and practices (KAP) on production of African indigenous vegetables in Kenya*. International Journal of Tropical Insect Science https://doi.org/10.1007/s42690-019-00085-8

Nyanza, D., Mukulu, E., and Iravo, M. A. (2015). *Can performance measurement system be used to measure effectiveness of the procurement function in organization?* IOSR Journal Business and Management (IOSR-JBM).

Sung, H. K., and Philips, R. G. (2018). *Indicators and Community Well-Being: Exploring a Relational Framework.* International Journal of Community Well Being (2018). 1: 63-79.

Transfer of Technology and Extension Department Report. (2020), Malaysian Cocoa Board.

Zaremohzzabieh, Z., Samah, A. A., Samah, A. B., and Shaffril, H. A. M. (2019). *Determinant of happiness among youth in Malaysia.* Int. J. Happiness and Development, Vol. 5, No. 4, 2019.