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EFFECT OF GROUP DYNAMICS ON TEAMWORK TECHNICAL EFFICIENCY IN AGRICULTURE: CASE OF A COCOA FARMERS ORGANIZATION IN BIWONG-BULU, SOUTH REGION OF CAMEROON

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ABSTRACT

This study examined the extent to which certain group dynamics factors influence the technical efficiency of working units. This is approached through an evaluation of a Research Institute led-project in collaboration with a farmer organization that is attempting to increase smallholder cocoa farmers' performances through teamwork-oriented training. A two-stage sampling procedure was adopted to select a sample size of 6 working units and 80 respondents. A questionnaire and focus group discussions were used for data collection. Data were analyzed using descriptive statistics and econometrics models. Results from the study showed that the more working unit members were educated and lived close to the place of work, higher is their intensity of participation in teamwork activities. The technical efficiency of working units was driven by multiple group dynamics factors such as, leadership, communication, and group cohesion. Under a democratic leadership, respondents were likely to be more efficient in their tasks. Working units where members frequently interact, communicate and exchange information are likely to be more effective. The cohesiveness in a group favors transparency, encourages participation, and guarantees commitment and cooperation among members. Teamwork can be a promising pathway to enhance the dissemination of knowledge in the new pioneer fronts of cocoa in Cameroon if good group dynamics are ensured. This paper recommended that stakeholders should include leadership, members' communication, and group cohesion in their training curriculum, instead of focusing only on technical and agronomic aspects.

Keywords: Intensity of participation, group dynamics factors, performance, leadership, communication, group cohesion.

INTRODUCTION

The cocoa sector plays an important role in the Cameroonian economy. Cocoa is the first cash crop product in Cameroon with more than 279 billion FCFA of export earnings in 2014 (INS, 2017). Moreover, 600 000 households depend on cocoa production for their livelihood (Kamdem, 2018; Lescuyer *et al*., 2019). However, the Cameroonian cocoa sector faces many challenges, notably, the decline of the main production basins due to urbanization, the aging of orchards and planters (Achancho,2006), and more recently political crisis, and climate change. There is a need to tackle these challenges in order to improve the cocoa farm performance in Cameroon. Improving agricultural productivity requires efficient transfer of technologies (Kamdem, 2018; Mbétid-Bessane, 2014). The failure of extension programs in agriculture is attributed mainly to inadequate diffusion of knowledge among farmers (Feder *et al*., 2004; Kamdem, 2018). This weakness justifies the increasing trends of participatory approaches, teamwork, group dynamics in social development endeavors, and agricultural extension (Yekinni, 2017).

Group dynamics refers to how small groups (4-5 to about 25 people) and individuals act and react to different circumstances (Mohanty & Mohanty, 2018) or to the internal and external forces that operate with a group of people (Kadian & Rudroju, 2018). Several studies have shown that the total productivity of the group is greater than the sum of the productivity of its members (synergy effect) (Slocum & Hellrielgel, 2009). Thus, there might be a high correlation between an organization's success on a particular activity and the dynamics among the team members (Gençer, 2019; Verburg & Vartiainen, 2013). For all these reasons the development of group dynamics among farmers belonging to the same organization has been advocated to improve performance in agriculture (Bharamappanavara & Jose, 2015; Kavoi *et al.*, 2016).

Recognizing the importance of group dynamics in extension, some research institutes in Cameroon have encouraged the development of teamwork as means to improve farmers' organizational effectiveness. For instance, in the South Region of Cameroon, the National Research Institute for Agricultural Development (IRAD French acronym) in collaboration with the Development Association of Engwepanyu (ADE French acronym) has co-implemented an experimental project aimed at disseminating knowledge to farmers in forest areas using a collective learning approach based on teamwork. For this purpose, ADE's cocoa farmers have been randomly aggregated in many small working units for the implementation of a cocoa nursery which is a big challenge for most of the cocoa farmers in this area (Mbangwana, 2017). While group dynamics and participation are increasingly promoted to enhance social effectiveness in agriculture, only a few research has empirically measured the relationship between socio-demographic characteristics of farmers and their intensity of participation in teamwork (Fischer & Qaim, 2014; Kirui, 2013; Sigei *et al*., 2014). Moreover to our knowledge, no study has been interested in the influence of group dynamics on the technical efficiency of a production working unit, in Africa especially in Cameroon. The urgent need for such knowledge justified our research interest. This study, therefore, investigated the level of participation and the effect of group dynamics factors on the technical efficiency of the working units of a cocoa farmers' organization in the South Region of Cameroon. The case of ADE is interesting because it covers in Biwong Bulu sub-division, an area that represents the main agrarian realities of forest area characterized by the low mastery of farming activities. The results of the study would provide ADE, IRAD, and other stakeholders valuable information on group dynamics factors to take into account to build successful teamwork in agriculture.

METHODOLOGY

This study was conducted in this particular region of Cameroon, precisely in the Biwong-Bulu division (Mvila Division). The southern region of Cameroon provides 4.99% of cocoa national production (ONCC, 2018). Its climate is tropical with an annual rainfall of 1500-2000 mm and a maximum temperature of 32°C. Its relief is made up of plains, plateaus, and hills whose height rarely reaches 1000 meters.

A two-stage sampling technique was adopted in the process of sample selection. First, a convenience sampling technique based on the accessibility of villages where ADE working units were located was conducted. Six (6) villages (Ongo, Abiété, Mang, Elone, Mgomdem, Mbako'o) out of the 19 villages where ADE has implemented working units were chosen. A second stage involved the selection of respondents in each teamwork. Since the groups were small-sized, all the members in each group were selected to have a representative sampling for statistical analysis. This gave a total sample of 80 cocoa producers, including eighteen (18) in Ongol, thirteen (13) in Abiété, sixteen (16) in Mang, seven (7) in Elone, twelve (12) in Mgomedem, and fourteen (14) in Mbako'o.

A semi-structured questionnaire was administered individually to cocoa farmers (N=80) to collect data on their socio-economic characteristics and their participation in team activities. The cocoa nursery collectively implemented by each group was considered as a referee for the survey. Six Focus Group Discussions (FGD) were held successively with all the six groups. It consisted of grouping cocoa farmers belonging to the same working units to understand their perception of the dynamic in their respective working units. The surveys were carried out by a team of two people including a student in agro economics, engineering and a researcher of IRAD.

The intensity of participation in the nursery's activities of observations has been estimated according to the scaling method proposed by Fischer & Qaim (2014). Observations (N=80) have been grouped into three (3) categories: low (up to 3 activities), average (4-6 activities), high (7-9 activities). Then, a chi-square test was carried out to establish the relationship between socio-demographic variables and either of these categories. The effect of group dynamics on technical efficiency was assessed using a two-stage analysis. The first stage consisted of estimating the level of technical efficiency of each group based on the data collected on their respective nurseries. The second analysis focused on identifying the variables that explained the level of technical efficiency of these groups. In the first case, the DEA model was used to estimate the technical efficiency score (TES) called variable returns to scale technical efficiency (VRSTE) . In the second case, the limited dependent variable model (Tobit model) allowed to highlight the variables that determine the level of technical efficiency (VRSTE) following the lead of Nso Ngang *et al.* (2020).

Variables considered for the estimation of the DEA model were of two types' inputs and outputs. i) Inputs: The nursery area (m2), The number of bags used per group, The number of workers per group (number), daily working time of each group (day), the quantity of water used for irrigation per group (liters), the volume of fungicides used per group (liters), volume of insecticide used per group (liters). ii) Outputs The success rate of the nursery for each working unit (SRN) and the percentage of members with high intensity of participation within each group (HPI).

While the dependant variable considered in Tobit modeling was the technical efficiency score (TES), the discriminatory variables were separated into two categories: individual factors and group dynamic factors. ii) Individuals factors: $X1$ =Age (years), $X2$ =Gender (0 female and 1 male), $X3$ =Marital status (1 single, 2 Married, 3 Divorced, 4 widowed), $X4$ =Other occupation than cocoa farming (0 no and 1 yes), $X5$ =Household size (n° of persons at home), $X6$ =Cocoa farming experience (years of experience), $X7$ =Level of education (1 primary, 2 secondary, 3 higher 4 never attended school), $X8$ =Distance from home to nursery (km); ii) Group dynamic factors: $X9$ = Leadership (0 bad, 1 good), $X10$ = Communication (0 bad, 1 good), $X11$ =Organizational context (1=Very unfavorable, 2=Not very favorable, 3=Moderatly favorable, 4=Very favorable), $X12$ =Group cohesion (0=Low, 1=High), $X13$ =Group motivation (0=Low; 1=High), $X14$ =Group composition (1=homogenous; 2=slightly heterogenous, 3= very heterogeneous)

RESULTS AND DISCUSSION

Socio-demographic characteristics of respondents

Table 1 revealed heterogeneity in the socio-demographic characteristics of respondents. It was indicated from the result that the average household size is (6.63) with a minimum of 1 and a maximum of 22, the number of people in charge of respondents is quite large (almost 7 persons per household). According to Kirui (2013), the larger the household is, the more family members are likely to get involved in agriculture to support their families. It has also been found that most of the respondents were men (76.2%) while women represented only 23.8% of the memberships.

Table 1: Socio-demographic characteristics of cocoa farmers (N= 80)

Variables	**Minimum**	**Maximum**	**Mean**	**Standards deviation**
Cocoa farming experience (Year)	1	49	14,78	11.536
Household size	1	22	6,63	4.138
Factors/Variables	**Categories**	**Frequencies**	**Percentages (%)**	
Age	0-20	3	3,8	
	21-30	15	18,8	
	31-40	22	27,5	
	41-50	20	25,0	
	51-60	13	16,3	
	61 and more	7	8,8	
Gender	Female	19	23,8	
	Male	61	76,3	
Level of education	Primary	24	30,8	
	Secondary	50	64,1	
	Higher	2	2,6	
	Never attended school	2	2,6	
Marital status	Single	17	21,3	
	Married	60	75,0	
	Divorced /Separated	1	1,3	
	Widowed	2	2,5	
Other activities	No	31	38,7	
	Yes	49	61,3	

This is consistent with findings from Nso Ngang *et al*. (2020) in the Mbam and Kim division where 86.8% and 13.2% of cocoa farmers were men and women. Results also showed that 27.5% of the respondents were between 31 and 40 years old and 25% were between 41 and 50 years old, 18.8%, between 21 and 30 years old and 8.8% of the respondents were over 61 years old. It was also found that 64.1% of the respondents attended secondary school while 30.8%, 2.6%, and 2.6% attended primary school, university, and did not attend school respectively. Concerning the livelihood, results show that 38.7% of the respondents have only cocoa farming as their only activity, while 61.3% have secondary activities such as trade and livestock farming. Finally, concerning the proximity of houses to the workplace, it has been found that the majority of producers live close to the nurseries (0.396 km). This might favor a high involvement in group activities.

Relationship between the intensity of participation and the socio-demographic characteristics of the cocoa producers

The results from the Chi-square independence test showed (Table 2) that the intensity of participation of members of working units depended on the distance between members' homes and the nurseries sites (P_value ≤10%) and the education level (P_value ≤10%). Indeed, it was noted that the percentage of people with high participation decreased from 40.6% for members living within 10 m to 0% for members living between 1000 and 2000m.

Table 2: Linkage between socio-demographic characteristics and intensity of participation

Variables Modalities		**Intensity of participation (%)**			**Total**
		Low	**Average**	**High**	
Age	0 - 20	0.00	6.25	4.35	(x^2=8.607 ; Sig=0.57)
	21 - 30	28.00	18.75	8.70	
	31 - 40	24.00	34.38	21.74	
	41 - 50	16.00	25.00	34.78	
	51 - 60	20.00	9.38	21.74	
	61 and more	12.00	6.25	8.70	
Gender	Male	84.00	75.00	69.57	(x^2=1.424 ; Sig=0.491)
	Female	16.00	25.00	30.43	
Education level	Never attend school	9.00	0.00	0.00	(x^2=10.44 ; Sig=0.097*)
	Primary	23 .00	31.00	32.00	
	Secondary	68.00	69.00	56.00	
	Higher	0.00	0.00	12.00	
Other activities	Yes	60.00	65.63	56.52	(x^2=0.491; Sig=0.78)
	No	40.00	34.37	43.48	
Distance from home to nursery	] 0 -10]	0.00	40.60	43.50	(x^2=11.363 ; Sig=0.0782*)
	] 10 -100]	40.00	37.50	30.40	
	] 100 -1000]	52.00	12.50	26.10	
	] 1000 -2000]	8.00	9.40	0.00	
Cocoa farming experience	0 - 10	36.00	62.50	52.17	(x^2=6.966 ; Sig=0.54)
	11 - 20	32.00	12.50	17.39	
	21 - 30	32.00	12.50	17.39	
	31 - 40	0.00	3.13	8.70	
	40 - 50	0.00	3.13	4.35	

*significant at 10%

So, it seemed that the closer the house of respondents was to the nursery site, the higher their participation rate. This result could be justified by the fact that members whom houses were close to the nursery feel responsible for it and tended to consider the nursery as a personal good. While those who were living far from the nurseries sites tended to come less often to group activities because of the long journey and the lack of transport facilities. Our findings contradicted the findings of Kirui (2013) and Sigei *et al*. (2014) in Kenya on the determinants of the intensity of participation of farmers in trading activities. However, these results are similar to those of Ouma & Abdulai (2009) and Fischer & Qaim (2014) in Kenya, who concluded that long journeys discourage group members from participating regularly in group activities.

Table 2 also revealed that the intensity of participation of cocoa producers in nursery-related activities depended on their level of education. Indeed, the percentage of people with high participation intensity increased from 0% among cocoa producers who never went to school, to 31% for those who did at least primary school, and to 69% for those who did high school. This finding can be explained by the fact that people with a high level of education may be more aware of the importance of collective work in learning. The evidence supports the findings of Sigei *et al.* (2014) who found that if the number of years of education of pineapple sellers in Kenya was increased by one year, market participation would increase by 0.02%. Contrary to the existing literature (Kirui, 2013; Ouma & Abdulai, 2009; Sigei *et al*., 2014), no relationship was found between gender, household size, cocoa farming experience, marital status, and participation intensity (all p-value greater than 10%). However, the fact that the exercise of other activities is not related to the intensity of participation is similar to the findings of Sigei *et al*. (2014)

Technical efficiency of working units

Figure 1 shows the level of technical efficiency of each working unit. It showed that the Ongol, Abiété, and Ngomedem were efficient with a technical efficiency score (TES) of 1 (100%). These results were not surprising, as those working units have shown considerable enthusiasm and rigourness in the management of their nurseries since the beginning of the project. Moreover, most of the members of these groups were not new to group work on nurseries. The Ngomedem working unit (TES=100%) was also efficient, but this result was quite unexpected, as this group had lagged behind the other groups due to the poor organizational context. However, this result may be explained by the fact that the group was led by an agricultural engineer and it has a fairly high percentage (9.9%) of members who had done higher education.

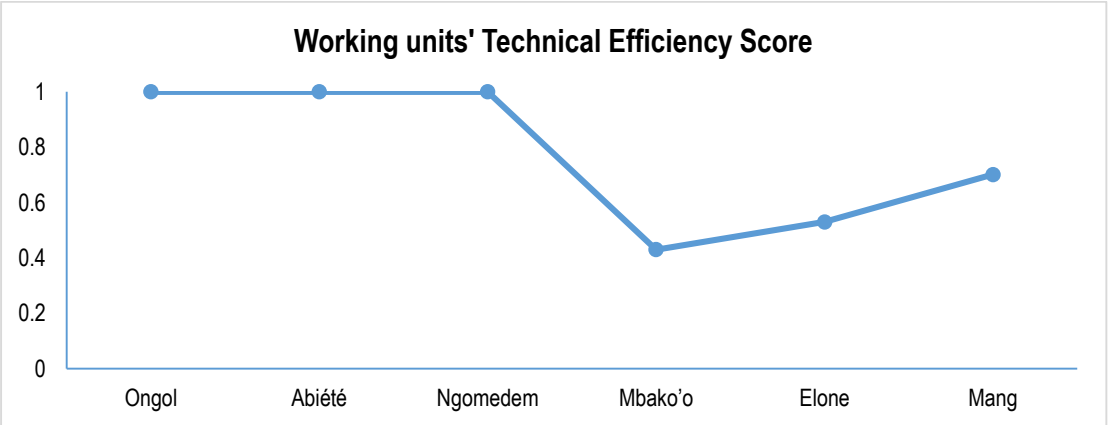

Figure 1 : Level of technical efficiency of ADE's working units

Figure 1 also revealed that Mbako'o, Elone, and Mang were ineffective with a VRSTE equal to 0.43 (43%), 0.53 (53%), and 0.701 (70.1%) respectively. These results showed a high waste of inputs in those three working units. These results corroborate with field observations that showed an overuse of water and cocoa beans in these areas. These VRSTE suggest that better management of the nursery could reduce inputs (especially water and cocoa beans) used by 67% in Mbako'o, 47% in Elone, and 29.9% in Mang while maintaining the same level of production.

Effects of groups dynamics factors on the teamwork's technical efficiency

The Tobit model was estimated using the maximum likelihood technique (Table 3). Table 3 showed socio-demographic variables and group dynamics variables that had significant influence on teamwork technical efficiency. Age and level of education were the socio-demographic variables thatwere found to have a significant effect on working unit technical efficiency. The age of cocoa farmers had a negative influence (significant at 10%) on the technical efficiency of the teamwork. This finding could suggest that aged producers had less working force than the younger producers and then were not performing well during activities undertaken in the nursery. This result is similar to Chebil *et al*. (2013) findings but contrary to those of Nso Ngang *et al*. (2020) who found that older cocoa farmers are more efficient than younger ones. Unlike the age variable, the level of education variable has been found to have a positive (significant at 5%) effect on the technical efficiency level of the teamwork.

Table 3: Determinants of the technical efficiency

	TE	**Coef.**	**Std. Err.**	**T**	**P>|t|**
Individuals factors	Sex	0.0267	0.0115	0.23	0.818
	Age	-0.0010	0.0059	-1.76	0.083*
	Marital status	0.0102	0.0082	1.24	0.218
	Experience in cocoa	0.0006	0.006	0.99	0.327
	Households size	0.00861	0.0011	0.78	0.437
	Labour	0.0823	0.0055	1.50	0.139
	Level of education	0.1446	0.055	2.61	0.011**
	Other activities	0.0059	0.0082	0.73	0.469
	Distance from house to nursery	$3.64.10^{-6}$	$9.64.10^{-6}$	0.38	0.707
Group dynamics factors	Leadership	0.0520	0.1449	3.59	0.001***
	Organisational context	-0.0007	0.0128	-0.06	0.955
	Communication	0.2117	0.0169	12.52	0.000 ***
	Group cohesion	0.3505	0.0115	30.26	0.000***
	Constante	0.3535	0.0379		0.000
	Sigma	0.0337	0.0026		

Number of obs. =80 ; LR chi2(20) = 308,23 ; Prob> chi2 = 0.0000 ; Log likelihood =157,49999 ; Pseudo R2= -45,4990 ***significatiant at 1% ; **signifiant at 5% ; *significant at 10%

This suggests that groups with a higher number of members with a high level of education are more efficient. As argued by Rogers *et al*. (2003) level of education plays an important role in performance because educated people are more likely to be faster in assimilating information and putting it into practice. This finding is similar to that of Barham & Chitemi (2009) who showed that successful groups of sales have highly educated members.

Table 3 also showed that group dynamics factors had highly significant influence on the group's technical efficiency level, especially leadership (significant at 1%), communication (significant at 1%), and group cohesion (significant at 1%). The fact that leadership had a positive effect on the working unit's technical efficiency suggested that groups that had good leadership were more successful than those that had poor leadership. From focus group discussion it was noticed that working units like Ongol, Abiété, and Ngomedem where the leader was always present, gave the farmers the freedom to propose ideas and ensured the distribution of tasks had been efficient as there was evidence that group members were more willing to effectively achieve the final goal when they were under democratic leadership (Dutercq *et al*., 2015). Communication also played in favor of working group's technical efficiency. Working units whose members interacted with each others and exchanged information were likely to be more effective. By having a platform of communication such as WhatsApp group, Ongol, and Abiété working units succeeded in creating interaction and efficient dissemination of information among cocoa farmers. This interaction among members tended to increase solidarity in the group and improved its functioning through good cooperation (Bharamappanavara & Jose, 2015). This result is similar to those found by Bharamappanavara & Jose (2015) in India. Another group dynamic factor affecting the technical efficiency of a working group was group cohesion. Group cohesion is based on the quality of the bond of belonging of its members which is a guarantee of commitment and cooperation (Kozlowski & Ilgen, 2006; Özer & Karabulut, 2019). Focus group discussion with farmers showed that successful groups used to organize a meeting at least 2 times per month to take stock of the work done and to encourage farmers as regular meetings have been shown to promote transparency and encourage the participation of members in the decision-making process (Anandajayasekeram *et al*., 2008; Lopes, 2015).

CONCLUSION AND RECOMMENDATIONS

In the final summation of these findings, it was important to note that group dynamics factors had serious implication on teamwork performance. Good leadership, good communication among members and high group cohesion led to the higher technical efficiency of working units. By focusing on these main levers, stakeholders of cocoa sectors could improve the performance of cocoa farmer's organizations in the area. Teamwork can be a promising pathway to enhance the dissemination of knowledge in the new pioneer fronts of cocoa in Cameroon. However, this result has to be confirmed by conducting further research on a larger sample.

REFERENCES

Achancho, V. (2006). Café et cacao au Sud Cameroun: évolution et constrastes sociaux. *Grain de Sel*, *34–35*, 0–1.

Anandajayasekeram, P., Puskur, R., Workneh, S., & Hoekstra, D. (2008). *Concepts and practices in agricultural extension in developing countries: A source book. IFPRI (International Food Policy Research Institute), Washington, DC, USA, and ILRI (International Livestock Research Institute), Nairobi, Kenya. 275 pp.* 275. http://books.google.com/books?hl=en&lr=&id=ScVyEphv15EC&oi=fnd&pg=PR5&dq=Con

cepts+and+practices+in+agricultural+extension+in+developing+countries+:+A+source+book&ots=A8kDcGzngm&sig=NpuHflls8MLbfmOW5QNbp60j1XY
Barham, J., & Chitemi, C. (2009). Collective action initiatives to improve marketing performance: Lessons from farmer groups in Tanzania. *Food Policy*, *34*(1), 53–59. https://doi.org/10.1016/j.foodpol.2008.10.002
Bharamappanavara, S. C., & Jose, M. (2015). Group Dynamics and Collective Performance of Self-help Groups under Different Microcredit Delivery Models in Karnataka. *Agricultural Economics Research Review*, *28*(1), 127. https://doi.org/10.5958/0974-0279.2015.00010.5
Chebil, A., Bahri, W., & Frija, A. (2013). Mesure et déterminants de l'efficacité d'usage de l'eau d'irrigation dans la production du blé dur: Cas de Chabika (Tunisie). *New Medit*, *12*(1), 49–55.
Dutercq, Y., Thurler, M. G., & Pelletier, G. (2015). *Le leadership éducatif : entre défi et fiction*. *January 2015*, 179 pages. http://ariane.ulaval.ca/cgi-bin/recherche.cgi?qu=a2434780
Feder, G., Murgai, R., & Quizon, J. B. (2004). The acquisition and diffusion of knowledge: The case of pest management training in Farmer Field Schools, Indonesia. *Journal of Agricultural Economics*, *55*(2), 221–243. https://doi.org/10.1111/j.1477-9552.2004.tb00094.x
Fischer, E., & Qaim, M. (2014). Smallholder farmers and collective action: What determines the intensity of participation? *Journal of Agricultural Economics*, *65*(3), 683–702. https://doi.org/10.1111/1477-9552.12060
Gençer, H. (2019). Group dynamics and behaviour. *Universal Journal of Educational Research*, *7*(1), 223–229. https://doi.org/10.13189/ujer.2019.070128
Kadian, K., & Rudroju, V. (2018). *Factors influencing group dynamics of farmers' interest groups under agricultural technology management agency (atma)*. *April*.
Kamdem, C.B. (2018). Libéralisation du marché et intrégration du marché du Cameroun. *Association Internationale Des Démographes De Langue Française*, *4*, 2018.
Kamdem, Cyrille Bergaly. (2018). Farmer field schools and cocoa yield in Cameroon. *Revue d'Economie Du Developpement*, *26*(4), 99–124. https://doi.org/10.3917/edd.324.0099
Kavoi, J. M., Kamau, G. M., & Mwangi, J. G. (2016). GENDER AND GROUP DYNAMICS IN SUBSISTENCE AGRICULTURE The Case Study of Kenya. *Int. J. Agr. Ext. International Journal of Agricultural Extension*, *04*(11).
Kirui, O. (2013). *244-Drivers of Collective Action and the Welfare Gains of such Initiatives among smallholder farmers: Experiences from Kenya*. http://ageconsearch.umn.edu/bitstream/161619/2/Oliver K. Kirui.pdf
Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the efectiveness of work groups and teams. *Psychological Science in the Public Interest, Supplement*, *7*(3), 77–124. https://doi.org/10.1111/j.1529-1006.2006.00030.x
Lescuyer, G., Boutinot, L., Goglio, P., & Bassanaga, S. (2019). *Analyse de la chaîne de valeur du cacao au Cameroun*.
Lopes, M. (2015). *Characterisation of farmer groups successfully multiplying and disseminating seed in Timor-Leste*. *i*, 1–8.
Mbangwana, E. (2017). *Understanding the potentials of the cacoa production in the southern region of Cameroon*.
Mbétid-Bessane, E. (2014). Adoption et intensification du Nouveau Riz pour l'Afrique en Centrafrique. *Tropicultura*, *32*(1), 16–21.
Mohanty, A., & Mohanty, S. (2018). The impact of communication and group dynamics on teamwork effectiveness: The case of service sector organisations. *Academy of Strategic Management Journal*, *17*(4), 1–14.
Nso Ngang, A., Kamdem, C., BKaldjob, C. B., Pedelahore, P., Onana, D., & Etoa, J. M. A. (2020). Contrat de travail et performance des exploitations cacaoyeres dans le Mbam et Kim au

Cameroun. *African Journal of Agricultural and Resource Economics*, *15*(2), 111–126.
Ouma, E., & Abdulai, A. (2009). *Contributions of Social Capital Theory in Predicting Collective Action Behavior among Livestock Keeping Communities in Kenya*.
Özer, M., & Karabulut, A. T. (2019). The Effects of Team Enablers and Team Cohesion on Project Team Success. *International Journal of Commerce and Finance*, *5*(1), 102–120.
Rogers, E. M., Singhal, A., & Quinlan, M. M. (2003). Diffusion of innovations. In *Diffusion of innovations, Third Edition*. https://doi.org/10.4324/9780203710753-35
Sigei, G., Bett, H., & Kibet, L. (2014). Determinants of Market Participation among Small-scale Pineapple Farmers in Kericho County , Kenya. *Munich Personal RePEc Archive*, *56149*.
Verburg, R., & Vartiainen, M. (2013). 1 Introduction 2 Perspectives on virtuality. *International Journal of Project Management*, *31*(1), 67–79.
Yekinni, T. (2017). Group Dynamics and Leadership in Agrarian and Rural Communities. *Rural, Agricultural and Environmental Sociology*, *November*.