



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

MARGIN SIZE BY ACTORS ON NODES IN POULTRY-MEAT  
SUPPLY CHAIN IN SOUTHWESTERN CAMEROON

Akem Nina Fabinin\*, Ernest Lytia Molua, Jules Rene Minkoua Nzie

fabininakem@yahoo.com

Department of Agricultural Market Analysis, University of Kiel, Kiel,  
Germany



*Poster prepared for presentation at the 59th annual conference of the  
GEWISOLA (German Association of Agricultural Economists)  
„Agriculture and rural areas in the course of societal change“  
Braunschweig, Germany, September 25th – 27th, 2019*

Copyright 2019 by authors. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

# Margin Size by Actors on nodes in Poultry-meat Supply chain in Southwestern Cameroon



**Fabian N. Akem, Ernest L. Molua & Minkona Nzie J.R.**  
 Abteilung Marktlehre  
 24118 Kiel, Germany  
 &  
 Department of Agricultural Economics and Agribusiness  
 Faculty of Agriculture and Veterinary Medicine  
 University of Buea  
 P.O. Box 63 Buea, SWR, Cameroon  
 Email: cid@cidcam.org



## INTRODUCTION

The expected increase in demand for animal products in Sub-Saharan Africa (Holloway and Wheeler, 2002) has profound implications for poverty alleviation in the face of expanding market opportunities for the poor smallholder livestock producers.

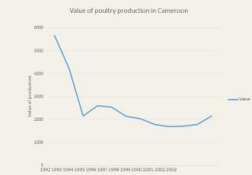


Fig. 1: Value of poultry-meat production in Cameroon (Source: Computed from FAOSTAT data, 2019)

The various actors on each node across the marketing chain need to receive proper returns for their endeavors.

## GOAL

To estimate actor margins and specify node relationships with respect to transaction costs and constraints.

## MATERIALS AND METHODS

The Southwest Region was sampled based on the most poultry-active divisions of the region. In these divisions, a stratified random sampling technique was employed and random samples obtained from each stratum.

30 questionnaires were administered per Division, and 40 per actor.

A Business Model (Smith, 1992) was employed to elaborate cost, margins, and mark-ups.

Farmers' share (%) = Farm gate Price x 100 / Retail price

Total Mark - Up (%) = Retail Price - Farm gate price x 100 / Farm gate Price

GMM (%) =  $CP_0 - FPr / CP_0 \times 100$   
 GMM (FCFA) =  $CP_0 - FPr$

Where GMM is the gross marketing margin,  $CP_0$  is the consumer or retail price (FCFA), FPr is the farm price (FCFA).

The relationship along the farm-retail was computed; a regression on STATA for the marketing cost.

## SUPPLY CHAIN

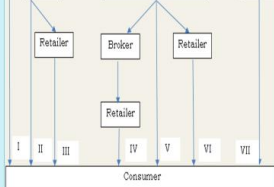


Fig. 2 Poultry-meat distribution channels in the southwestern region of Cameroon (Source: Computed from Field Survey, 2017)

Seven main distribution channels were identified in the sector.

## RESULTS AND DISCUSSION

Women constituted the majority across all actor nodes. The role of women as livestock keepers and especially in poultry production is more prominent than that of men (Guéye 2000; Tung 2005).

Table 1: Socio-economic profile of poultry market actors in the Southwest Region of Cameroon

Variable	Category	Frequency	Percentage(N = 120)
Gender	Male	47	39.2
	Female	73	60.8
Age	15 -25	22	18.3
	26 - 35	59	49.2
	36 - 45	20	16.7
	+45	19	15.8
Marital Status	Married	81	67.5
	Single	30	25
	Divorced	3	2.5
	Widowed	6	5
Educational Level	No formal	6	5
	Primary	32	26.7
	Secondary	52	43.3
	University/Higher	26	21.7
	Others	4	3.3
Scale of operation	Full time	76	63.3
	Part - time	44	36.7
Perception of road infrastructure	Very good	12	10
	Good	38	31.7
	Bad	46	38.3
	Very bad	24	20
Religion	Christians	116	96.7
	Muslims	4	3.3

Source: Computed from Field Survey (2017)

A benchmark of 24.6% may be a fair allocation for meat farmers (Busch & Spiller, 2016).

Contextual costs and other factors could affect this however (ERS, 2011).

Retailers received the greatest share of the final price (40%), 32.2% for farmers, and the least for wholesalers (27.8%). This corresponds to their relatively short stock holdings hence very little incentives for high mark-ups.

Table 2: Market Margin per 2.5kilograms of live broiler (% final price)

Market	Farmer	Wholesale	Retail
Fako	33.8	26.2	40
Meme	30.6	27	42.4
Manyu	34.5	29.5	36
Kupe- Mancnguba (Southwest region)	31.3	28.8	39.9
	32.2	27.8	40

Source: Computed from Field Survey (2017)

Meme Division had the least producer's share of the final price, producers in Manyu Division had the greatest share across their bill. Meme Division had the greatest share for retailers, while Manyu Division had the least share for retailers.

## Econometric estimates

The null hypothesis was rejected against the backdrop that there exists no significant difference in the margin means of the marketing stakeholders on the chain based on the t-statistic test for group means.

Table 3: Parameter Estimates of the Marketing Model

Variable	Coefficient	Std. Error
<b>WHOLESALE</b>		
Labour	0.87*	2.52
Transaction	1.40***	0.14
Advertising	0.14	0.72
Utilities	-0.84	2.38
Other cost	-2.08	1.47
Constant	25.01***	3.59
R-squared	83.19	
Adjusted R-squared	79.69	
F-statistic	.000	
<b>RETAILERS</b>		
Utilities	-1.80**	1.60
Transaction	0.70***	0.18
Advertising	1.17	0.63
Labour	2.61**	2.27
Other cost	-0.95	1.56
Constant	24.18***	4.62
R-squared	60.85	
Adjusted R-squared	52.34	
F-statistic	.000	

Source: Computed from Field Survey (2017)

On a likert scale the most prominent constraints constituted low initial investment capital, high transaction costs, and poor support facilities.

## CONCEPTUALISATION

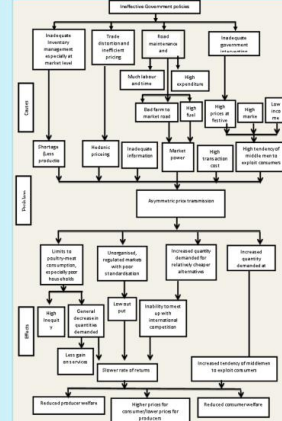


Fig. 3: Inter-relationship of factors causing asymmetry across the marketing bill (Source: Author's conceptualization)

## POLICY RECOMMENDATIONS

Small agricultural firms and individual producers make up over 70% of the total agricultural production. Technology increases efficiency of production and thus lowers prices. Information availability is also important in reducing the monopolistic powers of middlemen traders in the agricultural sector, thus aiding in market efficiency.

Efforts for provision and maintenance of farm and market infrastructure.

Reforms to curb information asymmetry across market actors, and counteract effects of large annex planned inter-actor margins.

Incentivizing the sector to boost value addition (processing which is almost completely absent for instance) and the sustained stay and entry of women, whose economic security has been advocated for given the critical role they play in the household economy.

## CONCLUSION

Findings reveal significant margin differences across actors.

The main marketing costs influencing groups included handling/labor and transaction costs, to a lesser extent utilities and advertising.

The amount of funds the actors commit to marketing costs determines profits and stimulates mark-up differences.

Low initial investment capital, high transaction cost, poor support facilities, information asymmetry and lack of access to formal credit constituted the major constraints of wholesalers and retailers.

## BIBLIOGRAPHY

Busch, G. & Spiller A. 2016. Farmer share and fair distribution in food chains from a consumer's perspective. *Journal of Economic Psychology*, 55: 149-158.

Guéye, E.F. 2000. The Role of Family Poultry in Poverty Alleviation, Food Security and the Promotion of Gender Equality in Rural Africa. *Outlook on Agriculture*, Vol. 29(2): 129-136.

Tung, D.X. 2005. Smallholder Poultry Production in Vietnam: Marketing Characteristics and Strategies. Paper presented at the workshop Does Poultry Reduce Poverty? A Need for Rethinking the Approaches, 30-31 August, Copenhagen, Network for Smallholder Poultry Development.