ANALYSIS OF COMMON BEAN (*Phaseolus vulgaris* L) CROSS-BORDER TRADE AND MARKET EFFICIENCY IN EAST AFRICA: A CASE STUDY OF KENYA

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A Thesis Submitted to the Graduate School in Partial Fulfillment of the requirements for the Award of the Master of Science Degree in Agricultural and Applied Economics of Egerton University.

EGERTON UNIVERSITY
May 2016
DECLARATION AND RECOMMENDATION

Declaration
I declare that this thesis is my original work and has not been submitted in any university for the award of a degree.

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KM17/3003/11

Recommendation
This thesis has been submitted with our approval as University supervisors.

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DEDICATION

I dedicate this thesis to Dennis Ochieng for his unconditional love, support and for being an inspiring husband. My beloved sons Isaiah Paul Otieno, Jesse Otieno Otieno and my mum and siblings, thanks for your support.
ACKNOWLEDGEMENT

I would like to thank God for giving me strength, good health and courage during my entire study period.

I give my sincere gratitude to the entire staff of AGEC/AGBM department for their steadfast support and providing a favorable learning environment. I gratefully acknowledge the support and guidance from my supervisors Prof. Mshenga and Dr. Birachi. Their constant guidance and comments were of great importance in making this work a success.

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Special thanks to my family for their support, prayers and love throughout the study period. The contribution and positive critiques from other individuals and friends will not also go unmentioned.

To God be the glory.
ABSTRACT

East Africa region has imbalances in the supply and demand of common bean. This can be offset by improving marketing infrastructure. The objectives of the study were to determine the characteristics of common bean traders, to determine the constraints to the observed trade in common bean varieties and finally to assess the extent to which markets have integrated in key selected markets. Multi-stage sampling technique was used to obtain a sample of 240 respondents (120 traders from the border points and 120 traders from key selected markets). The four border points (Busia, Malaba, Isebania, and Namanga) were purposively selected due to the extent of activities, nature of trade and the volumes of common beans that they handled. The three key markets (Nairobi, Mombasa, and Nakuru) were also purposively selected because of high potential demand and supply for common beans. Snow balling method was used to select the traders. Descriptive statistics were used to address characteristics of common bean traders in key selected border points and markets (objective 1) and constraints to the observed trade in the selected border points and markets (objective 2) and co-integration analysis was used to address the extent to which markets of common bean are integrated in key selected markets (objective 3). The findings revealed that a greater proportion of the traders were women, majority being retailers. The women traders also had more years of experience on average in the retail business compared to the men. Results also indicated that the major constraints to bean trade were high transportation costs, heavy rains, and irregularities in bean supply. Nyayo and Wairimu bean varieties were the most traded varieties in the markets whereas Saitoti variety was the least traded. The co-integration tests established that Nairobi- Mombasa and Nakuru- Mombasa Rosecoco markets and Nairobi- Nakuru and Nakuru- Mombasa Mwitemania markets were co-integrated. The study recommends that, in order to increase the degree of market integration, the government and private sector should improve marketing infrastructure especially the roads to enable easy flow of the product between the markets. There is also need to zero rate agricultural produce being imported in the country to tackle the issue of bribery at the border points, this in return will enable traders not take advantage of increased production to lower returns accruing to farmers thus enhancing degree of market integration.
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**ACRONYMS AND ABBREVIATIONS**

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<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CIAT</td>
<td>International Center for Tropical Agriculture</td>
</tr>
<tr>
<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
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<tr>
<td>COMESA</td>
<td>Common Market for Eastern and Southern Africa</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
</tr>
<tr>
<td>EABC</td>
<td>East Africa Business Council</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>Food and Agriculture Organization Statistics</td>
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<tr>
<td>FEWSNET</td>
<td>Famine Early Warning Systems Network</td>
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<td>Kenya Plant Health Inspectorate Service</td>
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<td>Regional Agricultural Trade Intelligence Network</td>
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