

Profitability of Indigenous Medicinal Plant Market (IMPM) in improving household income and food security.

**Bongiwe MCATA<sup>1\*</sup> and Sipumle QAPESHU<sup>2</sup>**

<sup>1</sup>Africa Institute of South Africa (AISA), Human Sciences Research Council (HRSC), Pretoria, Republic of South Africa, **Email:** [bmcata@hsrc.ac.za](mailto:bmcata@hsrc.ac.za)

<sup>2</sup>Doctoral Candidate-Department of Agricultural Economics and Extension, University of Fort Hare, Private Bag X1314, Alice 5700, RSA. **Email:** [sqapeshu@ufh.ac.za](mailto:sqapeshu@ufh.ac.za)

### **Abstract**

*Access to affordable medicines and food by households remain a prevailing challenge to many African communities especially those residing in rural areas. Hence, there are people who are dependent on Indigenous Medicinal Plants (IMPs) and vegetables practise which shows a market that has potential to contribute towards improving household livelihood and standards of livings. Thus, access and participation to formal and informal market by households results to food security enhancement, income generation and employment availability. However, IMPM operates under informal sector which tends to either be ignored or neglected. Informal markets are also associated with unofficial transactions between consumers and the seller tends to be the ones that suffer the most. Thus, this study looked at the profitability of IMPM focusing on the informal market. Primary data was collected in the Amathole district Municipality - Eastern Cape Province via observation checklist and informal discussion whereby purposive sampling was done to get data on the operations and effectiveness of the market. Results do illustrate the significance of the market i.e. employment creation, income generation that is used to buy food. Moreover, majority of the participants were women and it was identified to be labourious. The study concludes by noting that this is a livelihood strategy that needs to be well explored since a lot is linked to it i.e. skill development, inheritance and promotion of IKS through identity recognition by those selling and making use of the market.*

**Keywords:** Profitability, indigenous medicinal plants, market, income and food security.

## **Introduction**

Many Africans make use of this kind of livelihood strategy as it tends to have some vitality attached to it i.e. culture, identity attached to it as some people tend to inherit family by family. Therefore, these kinds of businesses are very important in generating incomes especially amongst the poor households and thus improve their welfare. Some of the IMPs sellers were not able to obtain formal education due to the calling of following this kind of Practice (being traditional doctors “*amagqirha*” or traditional herbalists “*ixhwele*”).

Studies in the Eastern Cape Province on the importance of IMPs and the role it plays to human kind have been done by scholars such as Bhat (2013); Bhat (2014) and Hutchings (1989). The studies done by these scholars were specifically in the Eastern Cape Province. But, little has been done on the socio-economic assessment on this kind of livelihood strategy which contributes to the standard of living of these household. Thus, the need to better understand the potential of the IMPM through profit maximisation from those who are partaking in this market. Furthermore, this market works in achieving better access to affordable quality.

## **Research Questions**

The market potential of IMPs in the study area will be assessed by the following research questions:

1. What are the Gross Margins and Gross Profit Margins from selling indigenous medicinal plants?
2. What is the food security status of households partaking in IMPM?

## **Research Objectives**

This study will investigate the profitability of indigenous medicinal plant market (IMPM) in improving household income and food security. The specific objectives are to:

- Assess the profitability of IMPs in the study area.
- Assess the food security status of the people partaking in the IMPM.

## **Materials and Methods used in the study**

### **Description of the study area and group/population**

The study was conducted in the Eastern Cape Province (ECP) as shown in Figure 1. The Amatole District Municipality is between Port St John’s and Port Alfred, not leaving behind the city of East London. The District includes the large parts of the former Ciskei and Transkei homeland areas which is comprised of six local municipalities: Amahlathi, Great Kei, Mbashe, Mnquma, Ngqushwa and Raymond Mhlaba (Local Government Handbook, 2012).



**Figure 1: Map of Amathole District Municipality**  
**Source: Local Government handbook (2012)**

### **Study sampling and study target population**

Sampling for this study was based on a large sampling technique of  $n \geq 30$ . Sampling for this study was based on a large sampling technique of  $n \geq 30$ . Non-probability sampling was done whereby purposive sampling was employed in this study. A sample of 60 participants were interviewed ( $n = 60$ ). This sample comprises of households that sold IMPs which was made up Traditional practitioners namely: diviners - *Amagqirha* and herbalists - *Amaxhwele*, which were the study target population. In addition, hawkers/ street vendors selling IMPs were part of the study.

### **Data collection**

Data was collected via informal discussions and observations checklist to acquire the study qualitative data. The Checklist included: accessibility of the house/stand, IMPs quality (freshness), packaging, hygiene elements and storage. The local language "IsiXhosa", was used when collecting data, which was later translated into English for the purpose of this study. The use of the local language was an advantage for the researchers who were "IsiXhosa" speakers.

### **Data analysis description**

Gross Margin Analysis (GMA) was done with the aim of determining the profitability of IMPM. In addition, Poverty Line (PL) was used to determine the food security status of the respondents. Specification of methods used in the study are listed below:

#### **Gross Profit Analysis (GMA)**

Gross margin provides a simple method for comparing the performance of enterprises that have similar input requirements for capital and labour (Forestry, 2012). It is derived from an enterprise total income less the variable costs incurred in the enterprise. This method was selected due to its simplicity and commonly used to get an enterprise's profitability.

Algebraically gross margin can be expressed as:

$$GM = TR - TVC$$

Where:

**GM** is the gross margin

**TR** is total revenue and

**TVC** is total variable costs.

#### **Poverty Line (PL)**

Poverty Line was employed to get households' food security status based on the household income. This PL was developed by Amartya Sen in 1980 for rural areas in the United States of America (Sen, 1981). Since 2011 there has been an accumulation of people living below the 2015 poverty line of R441 per person per month from 11 million to 13.8 million (Statistics South Africa – Stats SA, 2017). Thus, many South African researchers have adopted this analysis as a measure for food security conditions especially in rural areas. Therefore, PL was adopted in the study and employed to determine the households' food security status of the study respondents.

### **Results Summary**

The results presents the household socioeconomic variables of the study respondents. Results showed there were more females (70%) than males (30%) that took part in this market based on the study respondents. The majority of females tends to have more profitability opportunities than males. The average age of the respondents was between the ages of 35- 65 years. Thus, the older the participants, the greater the experience they have with IMPs which results to better profits of IMPM which may yield.

The study shows that the majority of the respondents had secondary level of education (65%), followed by those with no formal education (20%). The respondents with no formal education were at household level as they noted that “they had to drop school due to the calling of being a traditional healer – *Igqirha*”. Respondents from this study have a high dependence on social grants, with about 75% of the respondents more specifically child and Old age grants. Other sources of income i.e. remittance money, retirement, some are smallholder farmers with livestock that they sold and business profits from the IMPs. The majority of the respondents were in the income range of > R2000. This has a positive correlation with food security as for a household to access food since they have access to money.

### Household food security status summary

Results revealed that the participants were food secure based on their income. Wealthier households do not suffer food shortages as much as low-income households (Mcata, 2013).

### IMPM profitability

All income generating activities have a positive effect on market participation as it promotes better profits. Thus, an increase in either monthly or annual income generated by a commodity seller/ hawker increases the livelihood of market participation decision (Osmani and Hossain, 2015).

**Table 1: IMPM profitability via Gross margin Output**

Cost and Revenue	Amount in Rand's (R)
<b>Gross Revenue</b>	<b>R3000.00</b>
<b>Variable Cost</b>	
Harvest of Herbs	R100.00
Cleansing of Herbs	R200.00
Parking of Herbs	R50.00
Transportation	R500.00
<b>Gross Margin</b>	<b>R2150.00*</b>

**\*It should be noted that this was more or less a weekly mark-up.**

The gross margin was found to be R2150.00 which means that this gross margin is positive. However, for those selling from home, a more profit since people consult on regular basis. This shows how profit potential this market has based on the information told. On average the retailers who had the positive gross margin tend to sell their IMPs in the towns.

## **Conclusion and Recommendation**

In conclusion, IMPM has so much potential in improving household food security through income generation. Thus, with well understanding and participation by the sellers in sustaining the market will improve the sector. The main thing noted was that was mentioned by the respondents was on the issue of subsidies like any other market would assist in improving the market and eliminating some challenges that the sellers face when collecting/ picking IMPs.

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## **Conflict of interest statement**

All the authors of this short paper have no conflict of interest to declare. This is to confirm that the short paper has never been prior by both authors and it is our original work.

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