

# Consumer Preference and Willingness to Pay for Sweetpotato Juice in Rwanda

## Does nutritional information matter?

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### Introduction

Malnutrition, in particular, is a major problem in sub-Saharan Africa. A particular problem facing children under 5 years of age is stunting (Low et al 2007; De Groote and Low 2012; Sindi et al 2013).

A recent report indicated that, in 2012 alone, 36%, 29% and 15% of children underweight and wasted children lived in Rwanda.

Interventions to address the problem of malnutrition: 1. Frequent consumption of foods rich in pro-vitamin A, beta-carotene (OFSP) (Low et al 2007; De Groote and Kimenju 2012). OFSP was found to be the cheapest and most effective intervention for children under five years of age.

Rwanda is the smallest landlocked country in Africa. It has a small economy, contributing 34% of GDP, 80% of which is from agriculture (Muhinda 2013). 41% of the population live below the poverty line (PLI: 42.7-45.2%) of children under five years of age are underweight (RDHS, 2010).

Only 7.1% of the land under crop cultivation is used for sweetpotato. The willingness for individual crops was highest for Sweetpotato (17.2%) (NISR 2013).

### Methods & materials

Individuals selected from seven different markets in Kigali to evaluate the difference in attribute preferences and willingness to pay. A two-stage Heckman Selection model was used to estimate the willingness to pay. A multinomial logit model was applied to both the selection and the choice equations which influences the decision to choose a particular juice.

### Conclusion

Compared with other juice, willingness to pay for OFSP juice increases once nutritional information is provided. The willingness to pay for sweetpotato juice product in Rwanda.

### Results

Juice type	Color	Aroma
OFSP-Juice	3.96	2.88
P-Inyange	3.18	3.86
P-SINA	3.08	3.99
Blend (85% OFSP)	3.82	3.10
<i>T-statistics difference in means without nutritional information</i>		
OFSP vs P-Inyange	11.34***	-15.26***
OFSP vs P-SINA	13.85***	-19.02***
Blend vs P-Inyange	9.31***	-10.91***
Blend vs P-SINA	12.14***	0.34
<i>T-statistics difference in means with nutritional information</i>		
OFSP vs P-Inyange	7.16***	1.77
OFSP vs P-SINA	6.58***	0.40
Blend vs P-Inyange	9.76***	3.33***
Blend vs P-SINA	8.75***	6.61***

Without VA-information

With VA-information

In the absence of vitamin A information on willingness to pay for it is higher compared with the information of OFSP juices, tasters prefer the blend. Once the information has changed. For both OFSP and blend, the willingness to pay is higher compared with the pineapple juices.

#### DETERMINANTS OF JUICE CHOICE MULTINOMIAL LOGIT MODEL

Variables	OFSP
Sex	0.39
Age	-0.01
LnPrice	0.04
Dummy right sugar (1 Yes, 0 No)	2.14***
Dummy like aroma (1 Yes, 0 No)	0.80**
Dummy like taste (1 Yes, 0 No)	0.93**
Taste consistent (1 Yes, 0 No)	-0.28
Dummy like color (1 Yes, 0 No)	0.77**
Dummy buy weekly (1 Yes, 0 No)	0.58
Dummy affordable (1 Yes, 0 No)	0.05
Dummy tasty (1 Yes, 0 No)	-1.14*
Dummy healthy (1 Yes, 0 No)	-1.03*
Number bought (package/bottle)	0.00
Dummy heard vitamin A (1 if Yes)	-0.07
Middle class Market	-0.52
High class market	0.11
Constant	-2.47*