

Consumer preference/acceptability studies of selected cassava-based products in four districts of Zambia

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Introduction;

Cassava (*Manihot esculenta* Cr) is an important crop after maize in Zambia more than 30% of the population rely on it as a food security crop (Poole, 2010). However, Cassava processing and utilization in Zambia is still rudimentary and focused on traditional products i.e. Bwabi, Kapesula etc. For that reason, there is limited cassava – based products in the country. To commercialize and promote the utilization of cassava in Zambia, a consumer acceptability survey was conducted in four of the five cassava growing project targeted Districts – Mansa, Kasama, Serenje and Kaoma. These districts were chosen based on the facts that they are the major cassava growing and consuming areas. Five novel cassava based- products: Chin-chin, Tid-bits, Cassava leaves, Biscuits and Fritters were produced and used. The findings of this study highlight the following for each product:

Results and Findings

Chin-chin

- Across all the districts, most of the respondents (92 percent) indicated that they had had not consumed Chin-chin before. Overall acceptability of Chin-chin (HQCF) was about 96 percent in all the districts and 95 percent for Chin-chin (Wheat).
- Over 97 percent of the respondents showed that they were willing to pay for both Chin-chin (HQCF) and Chin-chin (Wheat). Willingness to pay was higher for Chin-chin (Wheat) compared to Chin-chin (HQCF) (K2.82 compared to K2.66).
- Most of the respondents across the districts preferred Chin-chin (Wheat) to Chin-chin (HQCF). Overall, 62 percent of the respondents preferred Chin-chin (Wheat) to Chin-chin (HQCF).

Tid-bits

- Less than 20 percent of the respondents had prior knowledge or had ever consumed Tid-bits. Overall acceptability for Tid-bits (Beans) and Tid-bits (Soya beans) was 96 and 95 percent

respectively with the most liked attribute being the aroma (94 percent) while the least preferred was the taste (92 percent).

- Overall, Tid-bit (Beans) had a higher percentage (98 percent) of respondents that showed that they were willing to pay for it compared to Tid-bit (Soya beans) (95 percent). The amount that the respondents were willing to pay for Tid-bit (Beans) was higher compared to Tid-bit (Soya beans) (K2.64 compared to K2.48).
- The most preferred sample for the entire sample and across all districts was Tid-bit (Beans) with 60 percent of the respondents preferring it compared to 40 percent for Tid-bits (Beans).

Home-made Biscuits

- Less than 50 percent of the respondents had prior knowledge or previously consumed homemade-biscuits. Overall acceptability for both Biscuits (HQCF) and Biscuits (Wheat) for the entire sample was 96 percent.
- Willingness to pay (WTP) for Biscuits (HQCF) and Biscuits (Wheat) was high with as many as 99 and 98 percent of the respondents willing to pay for the two samples respectively. The willingness to pay for Biscuits (HQCF) was higher (K2.62) compared to Biscuits (Wheat) (K2.41)
- The most preferred sample overall was Biscuits (HQCF) with about 61 percent of the respondents choosing Biscuits (HQCF) over Biscuits (Wheat).

Cassava Leaves

- Overall, 100 percent of the respondents showed that they had previously consumed cassava leaves. In terms of overall acceptability, 76 percent of the respondents liked Soy Fortified Cassava, 95 percent liked Groundnut Fortified Cassava while 70 percent liked Plain Cassava Leaves.
- In total, 88% of the respondents indicated willingness to pay for Soy Fortified Cassava., 94% for groundnut fortified cassava leaves and 84% for plain cassava leaves. Across districts respondents indicated that they were willing to pay K2.7 for Soy Fortified Cassava, K3.26 for groundnut fortified cassava leaves and K2.48 for plain cassava leaves.

- The most preferred cassava leaves sample was groundnuts fortified cassava leaves, preferred by 58% of households, while the least preferred was plain cassava leaves with 18% of the respondents.

Fritters

- Overall, about 90 percent of the respondents had previously consumed Fritters. In terms of overall acceptability, about 84 percent of the respondents liked cassava root fritters, slightly over 84 percent liked cassava root fritters, 86 percent of the respondents said they liked the wheat fritters and about 82 percent liked cassava soy fritters.
- In total 93, 95, 97 and 94 percent of the respondents indicated willingness to pay for Cassava root fritters, Cassava fritters, Wheat fritters and Cassava-soy fritters respectively. The respective mean amounts that respondents were willing to pay Cassava root fritters, Cassava fritters, Wheat fritters and Cassava-soy fritters were K2.24, K2.14, K2.2 and K2.12.
- Across all districts, the most preferred fritter sample was cassava root fritters (35%), the least was cassava-soy fritters (17%).

Conclusion

To improve awareness and availability of these products, there is need to, among other things to train a) youths/men/women who can produce HQCF consistently which is an essential ingredient in most of the novel products; and b) small and medium enterprise (SMEs) such as bakeries and restaurant owners in the use of HQCF in the preparation cassava based products. Cassava certainly holds great potential for industrial commercialization and food security through development of a diverse range of cassava food products that not only have a longer shelf life but would also be made available to an array of consumers both in rural and urban areas. Commercialization of cassava will thus need a robust or change in thinking in the agronomic practices and a shift to cultivation of improved disease-free cassava cuttings that meet industrial needs. This calls for increased investment in local research institutions mandated to supply clean improved cassava planting materials that meet industrial needs to smallholders. It also opens an opportunity for private seed growers to fill the gap. Investment by SMEs in cassava processing equipment to produce HQCF is a prerequisite to make cassava - based novel products.