

## Feedback: Veritable Tool for Agricultural Technology Development and Improvement

Adegbola J. A.<sup>1</sup>, Owojaiye O. B.<sup>2</sup>, Ogunremi O. B.<sup>1</sup>, Nwafor S. C.<sup>2</sup>, Aina O. B.<sup>1</sup>, Adegbola Q. R.<sup>1</sup>,  
Achime K. C.<sup>1</sup>, Akinola-Soji B.<sup>1</sup> and Pessu P. O.<sup>1</sup>

<sup>1</sup>Scientist, Nigerian Stored Products Research Institute, Ilorin, Nigeria

<sup>2</sup>National Root Crops Research Institute, Umudike, Nigeria

### SUMMARY

The utilization of passé technologies and methods, among others, predisposes the agricultural sector in developing countries to underdevelopment. In the agricultural technology and improvement space, for research to be able to develop or improve on an existing technology, it must fully comprehend the problems of the end users. Feedback helps research understand how users of technology are reacting to all the aspects of a technology/product/services. It enhances informed decisions at development and or improvement of agricultural technologies. There are two major feedback tools often used in rural sociology and the sciences; technology-based feedback platforms and in-person feedback surveys.

### INTRODUCTION

Feedback, sometimes referred to as review is a crucial component of technological development and improvement. Though both terms are analogous and often used interchangeably, feedback is sought for while review is unsolicited. Feedback is the information, perceptions, and inputs shared by stakeholders about their experiences with utilization of products or services; it provides insight about overall outcomes, characteristics and/or consequences of technologies disseminated to clientele not leaving out their deficiencies and fixes. It is the process of relating information from end-users back to research after having received or adopted an innovation earlier disseminated to it (Oyetero and Akinbode, 2010).

All technologies have a gap and or become obsolete at some point. As such, for efficiency and improvement of agricultural innovations, especially agricultural technologies, organizations, be it public or private, are duty-bound to have in place effective mechanism or system for collecting, analyzing, utilizing and responding to stakeholders' reviews. The importance of feedback is heightened by the cavernous information gap existing between Research and Development (R & D), extension, and users of research results impacting negatively on overall agricultural development, especially development of agricultural technologies and practices (Omotayo, 2004). For example, organizations at the frontlines of technological development in the agricultural sector especially in the Third World have had to stick with technologies long after their values have diminished because of huge financial investments that go into R & D which may not always give a tangible result. However, locking into technologies for unnecessary long period of time will not align with the ever changing technology needed in modern agriculture.

Research by itself is not all knowing; feedback creates a relationship between research and consumers of agricultural technologies by fostering conversations around and about agricultural technologies. Feedback motivates change, as such creating avenues for feedback recognizes the fact that change is constant, and dynamic technology models are the bedrock of rural development. Feedback could be in the form of commendation for an innovation or commendation for some component of the innovation, it could also be disapproval for an innovation or disapproval for some of its components. Commendation gives credence while criticism offers ideas to make improvement to the innovation. Furthermore, research considers negative feedback as stimulant for well thought out decisions and enhance technological development.

### Feedback Mechanism

Feedback mechanism are the tools used to garner feedback. They allow organizations ask questions while simultaneously allowing end-users ventilate their concerns and frustrations with, and give suggestions for improvement of technologies disseminated to them for optimum efficiency. Information gathered through feedback mechanism are reported to R&D units for making improvement to existing technologies or developing new ones from the scratch. For a fact, changes made to agricultural technologies based on feedback in times past have led to significant improvement in user's satisfaction (Kimano, Mukandiwa, & Mario, 2010). In-person surveys and technology-based engagement platforms are common feedback mechanisms employed in the

agricultural sector. Feedback technology-based portals and platforms enhance stakeholders' access to make regular inputs (observation, complaints, admiration etc.). The internet has broken boundaries, and the penetration of mobile and internet services to rural areas in Nigeria witnessed an increase between 2017 and 2022 (Daily Trust, 2022); the technology presents opportunities to garner feedback from rural stakeholders. In this wise, organizations have leveraged the popularity and power of the Email and social media platforms such as Facebook, Twitter and Instagram to get feedback and review from stakeholders in shortest time possible. Other widely used technology-based engagement instruments include phone call, text messages as about half the population of Nigeria and thirty percent of ruralites in the country own a smartphone (The Punch, 2022). Arguably, phone calls and text messages are among the most flexible means of getting feedback in the agricultural milieu (Adesina, 2015).

An efficient feedback tool is the in-person- feedback survey. Like the technology-based feedback platforms, it gives insight to the experiences of users of a technology, products or services. Fundamentally, this survey is usually done orally and uses standardized interview schedules whose intent is to bring to the fore perceptions, experiences, requirements and suggestions of users of a technology, product or service towards its improvement.

## CONCLUSION

Little or no consideration for feedback from end users have led to impracticable, cost ineffective and every so often culturally discordant technologies in the agricultural sector. For development of appropriate innovations and improvement of existing technologies, organizations must embrace feedback tools that allow stakeholders to give their suggestions, opinions and views. Positive feedback gives credence to technology/product/service while negative feedback stimulates further research for improvement.

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