# Operational Context as a Driver for Post-harvest Product Handling Practices; The Case of Pineapple Value Chain in South Western Uganda

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#### Introduction:

- In a social-ecological system like an agricultural value chain, the farmer, or any other value chain actor, is the central actor (Norman, 2000a; Fair-weather, 2010 in Kaufmann, 2011), as it is through his routine practices that the system is established, shaped, and maintained; if these constitutive practices change, the system changes as well.
- •The pineapple postharvest system in South Western Uganda is characterized by; pre-cooling, transport, drying, storage, sorting, grading, packaging, wholesale, distribution, and retail as the major postharvest product handling activities.
- "During postharvest product handling, value chain actors operate within an environment (context), which can either facilitate or limit the attainment of their activity objectives (Gereffi 1995). Various factors have been observed to characterize the context in which the post-harvest product handling system is operated including; market access and market orientation (Grunert et al. 2005), available resources and physical infrastructures (Porter 1990: factor conditions) and institutions (regulative, cognitive and normative; Scott 1995) among others, all of which influence the ability of the value chain actor to decisively regulate the system, so as to achieve his set goal.

#### **Operational Context** Value Chain Actor More Threats than Reflexive Observation **More Opportunities Opportunities** than Threats **Post Harvest Achieve** Handling Strive to Adapt Desired **PRACTICES** PRACTICES System to Operational Outcome Context (Income and Value Addition)

## **Materials and Methods:**

- "This study was conducted as a Participatory Action Research (PAR); an approach to research in communities that emphasizes participation and action, seeking to understand the world by trying to change it, collaboratively and following reflection. Within a PAR process, "communities of inquiry and action evolve and address questions and issues that are significant for those who participate as co-researchers" (Reason and Bradbury, 2008, p. 1). It aimed at finding out why value chain actors do not gain satisfactory economic benefit from their engagement in the value chain with the current postharvest product handling practices, by taking a snap-shot at the whole pineapple value chain postharvest system.
- "This process was guided by principles from the Cybernetics theory, to conduct a systematic analysis of post-harvest product handling practices evidenced by value chain actors at each stage of the pineapple value chain in South Western Uganda, as well as examining the knowledge upon which actors' decisions to engage in these activities are founded. A process known as second-order observation- "observation of an observer", was employed to gain an insight in how the system is regulated, and how the information within it is processed (Wiener, 1948 in Kaufmann, 2011).

### Results:

- ■The pineapple post-harvest system in SW Uganda is characterized by a wide variety of goal oriented product handling practices.
- ■The value chain actor seeks to regulate the activity system through reflexive observation of his actions, learning and setting handling rules, in order to gain the most income from his engagement in the value chain.
- The chain actor's capacity however, to effectively direct the post-harvest activity system towards the direction he desires is dependent upon the specific characteristics of the contextual frame in which that activity system is functioning.
- ■The operational context usually consists of a wide range of infrastructural, institutional, financial, technical, knowledge and expertise aspects, all of which provide either opportunities for or constraints to the chain actor successfully influencing the activity system into the desired direction.
- ■The actor seeks to ensure that his goal for performing a particular postharvest product handling practice is effectively achieved

### Conclusion:

- A context with more opportunities; adequate packaging, storage, processing and transport infrastructure, access to credit, ready market and up to date market information, extension support, facilitates the value chain actor to stay in control and more effectively utilize the activity system to achieve his desired goal.
- On the other hand, an operational context with more constraints; rudimentary packaging, storage, processing and transport infrastructure, limited access to credit, ready market and market information as well as extension support, greatly limits the capacity of the controller to effectively regulate the system.
- The chain actor's product handling practices in this case are performed as a way of adapting to the unfavorable context, and much of the sought after benefits are not accrued to the actor.

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# Acknowledgements:

The RELOAD Project
Mbarara University of
Science and
Technology
German Institute of
Tropical Organic
Agriculture

