

RESEARCH

Exploring the Success of R&D BIOTECH Innovators in Higher Education Institutions: A Case Study of UPLB Agricultural Innovation

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INTRODUCTION

knowledge
management



knowledge
sharing

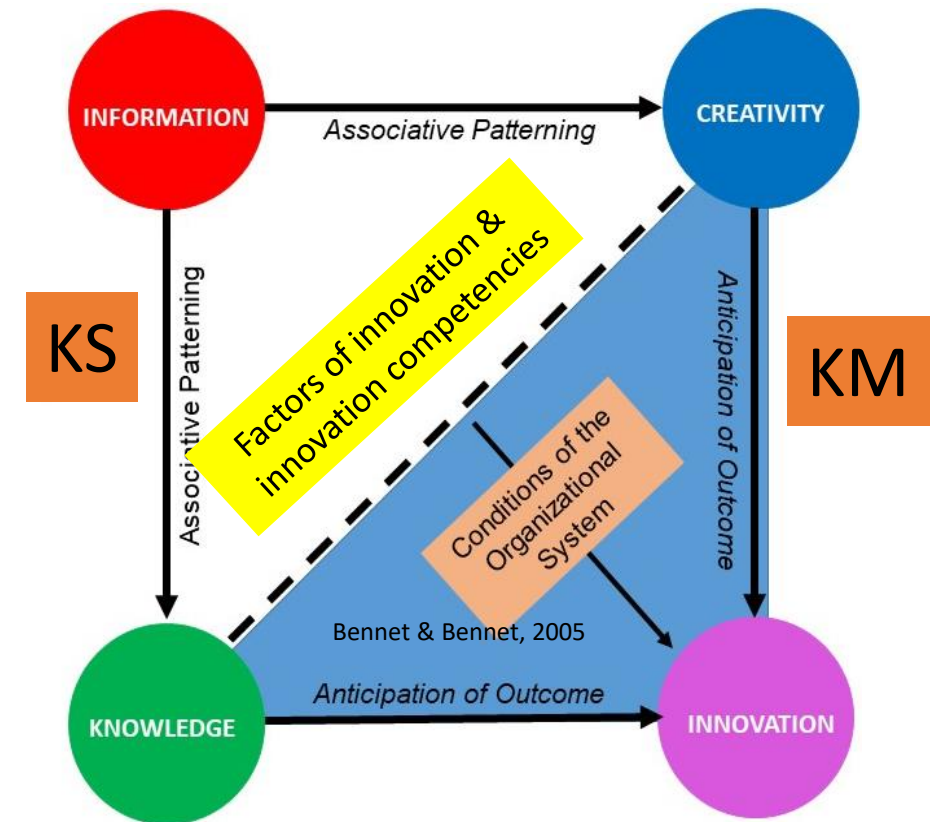


**Successful
innovation**

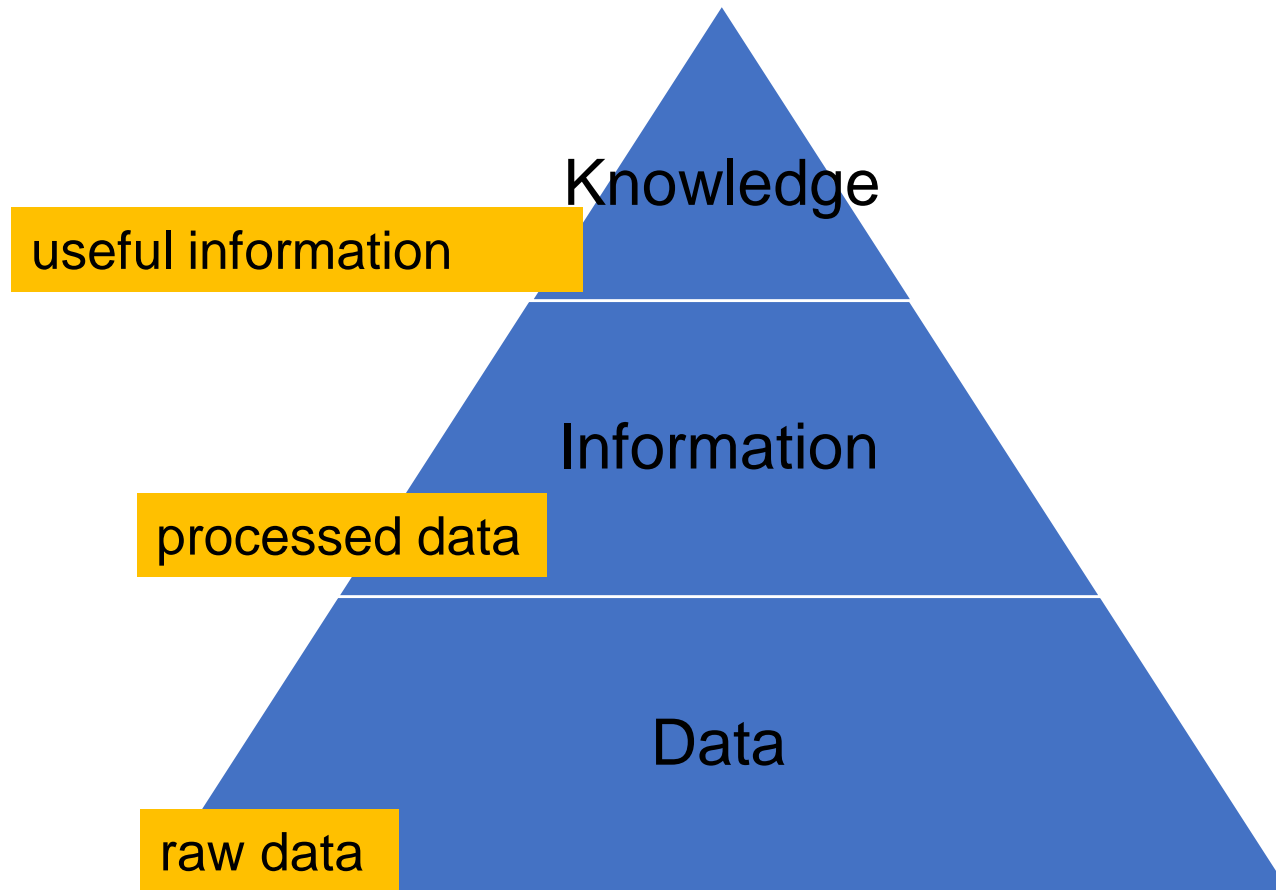
IMPORTANCE OF STUDY

Creativity though essential is not an adequate condition for innovation, and perhaps there are other conditions or factors (Amabile, 1996), which this research unveils.

- Expanded understanding of relationships among information, knowledge, creativity and innovation.
- With information as foundation, entanglement of knowledge and creativity.
- Creativity requires knowledge; knowledge comes with creativity.
- They cannot be separated.
- Model offers a novel and humble contribution to the field of knowledge and innovation management.



Knowledge put into action
creates value



Innovators tied
knowledge to action to
achieve successful
innovation.

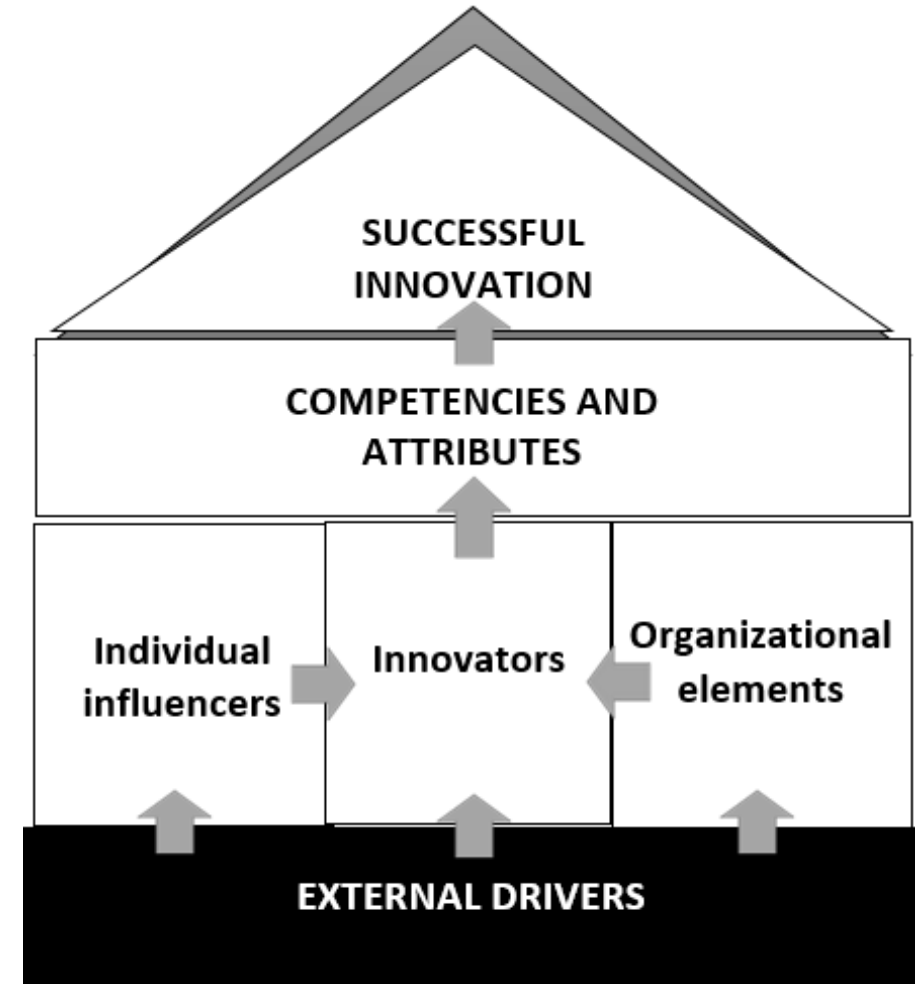
OBJECTIVES

- (1) to determine the unique characteristics of the R&D BIOTECH agricultural sector that influence innovation,
- (2) to determine the innovator competencies and attributes that enable successful R&D BIOTECH innovation in HEIs, through KS and
- (3) to identify how innovator success in R&D BIOTECH is supported and encouraged in HEIs.

Develop an innovation path model for higher education institutions (HEIs).

METHODOLOGY

- Qualitative method
- Single case study research design
- University of the Philippines Los Banos, Laguna (UPLB or Elbi)
 - Scientists-innovators based at The National Institute of Molecular Biology and Biotechnology
- Other significant individuals



RESULTS AND FINDINGS

Characteristics of BIOTECH that Influence Innovation

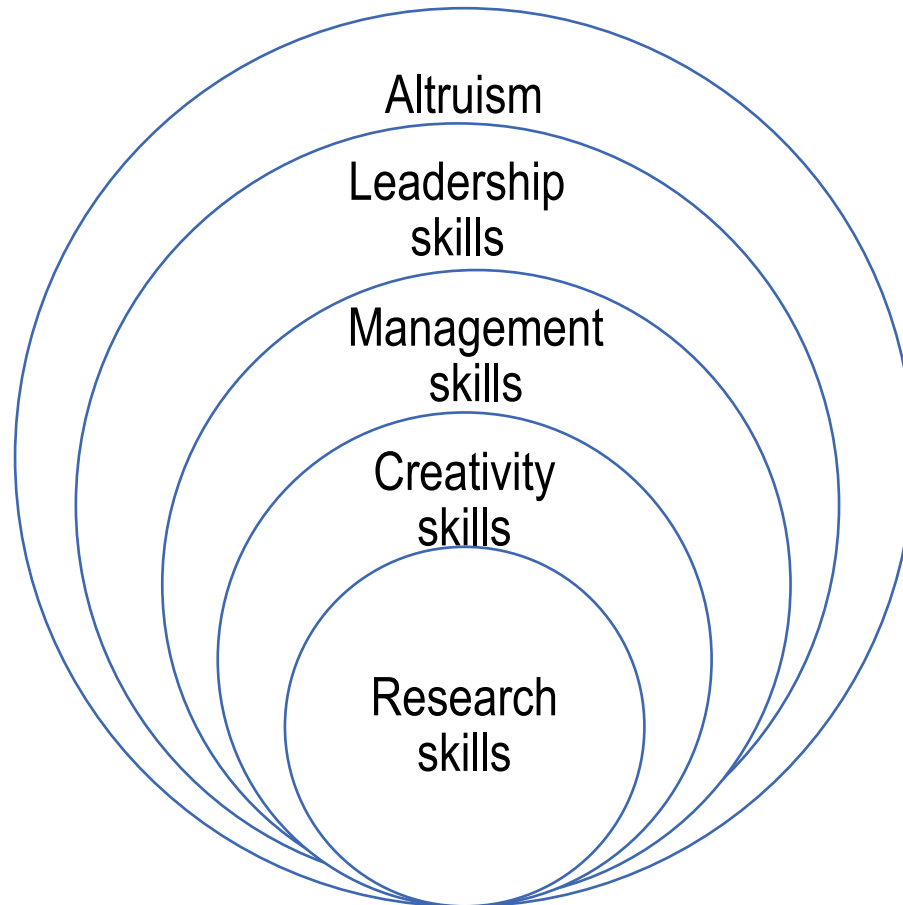
Category	Sub-category	Themes
External drivers	Environmental Aspects	Natural Calamities
		Societal issues
	External Relations	State of the Art Facilities
		Funding Agencies

RESULTS AND FINDINGS

Innovative Skills of the Scientists-innovators

Core Competencies	Competencies	Innovation Competencies Emerging from Research
Technical Skills	Problem-solving skills	Focusing skills
		Evaluating skills
	Creativity skills	Critical thinking skills
		Resourcefulness
Social Skills	Leadership skills	Mentoring skills
		Collaborating skills
Transcendence	Altruistic skills	Advocacy
		Commitment

RESULTS AND FINDINGS

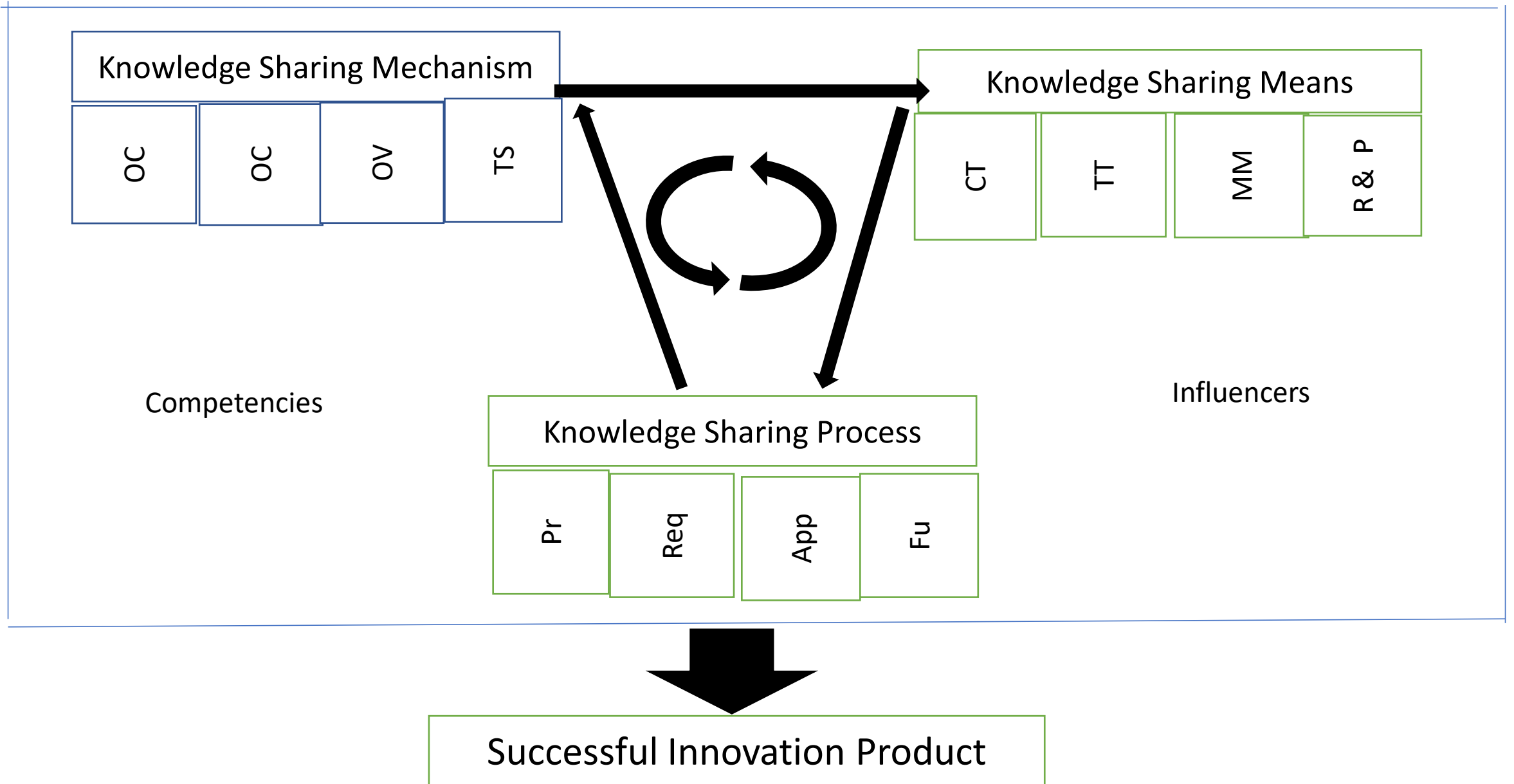


*Progression of Innovation Core Competencies
of the Innovators (RCMLA)*

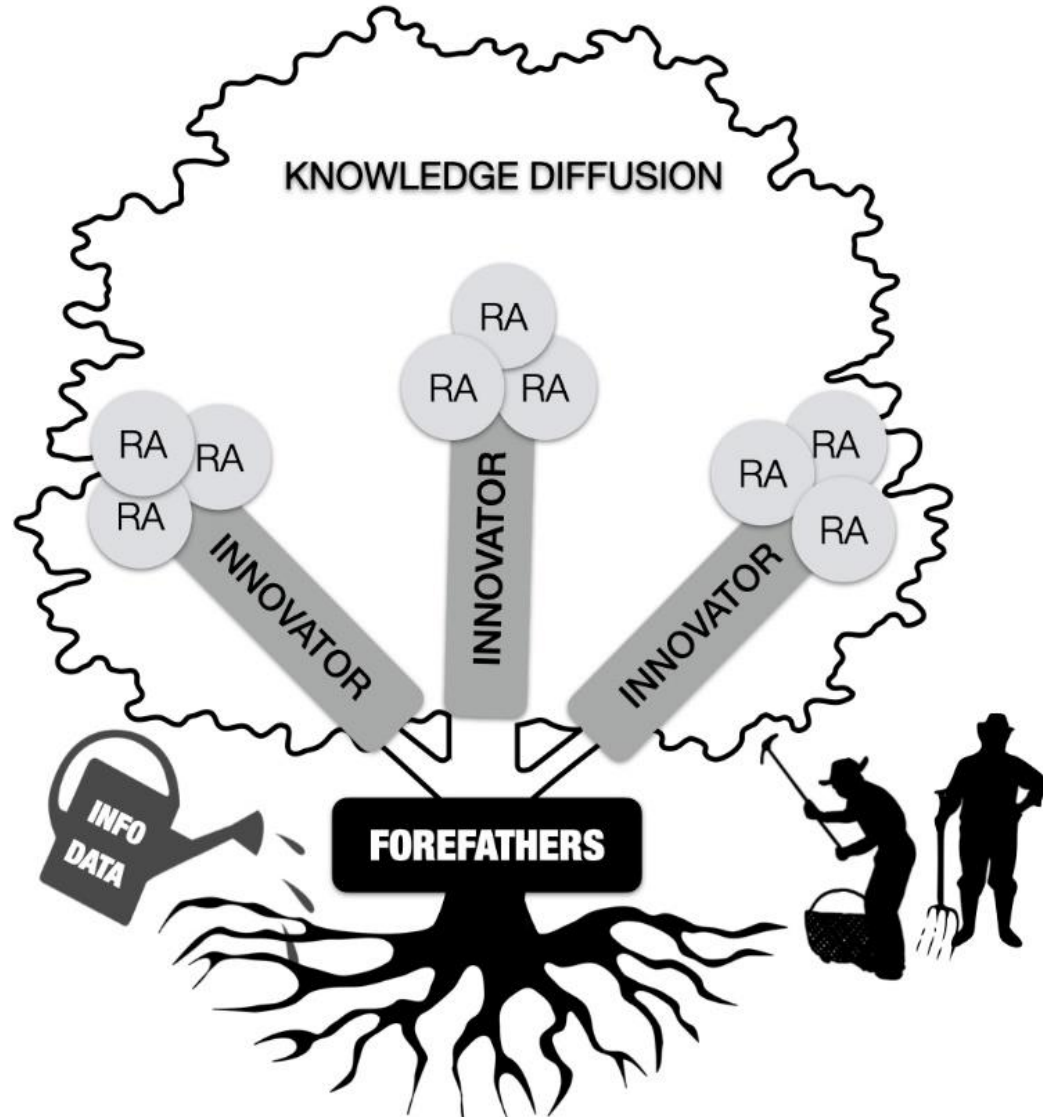
Emerging Competencies

- They overlap and reinforce each other, they are different
- Both domain-specific and domain-generic
- Finding from study: **These competencies are cumulative in nature**

RESULTS AND FINDINGS



RESULTS AND FINDINGS



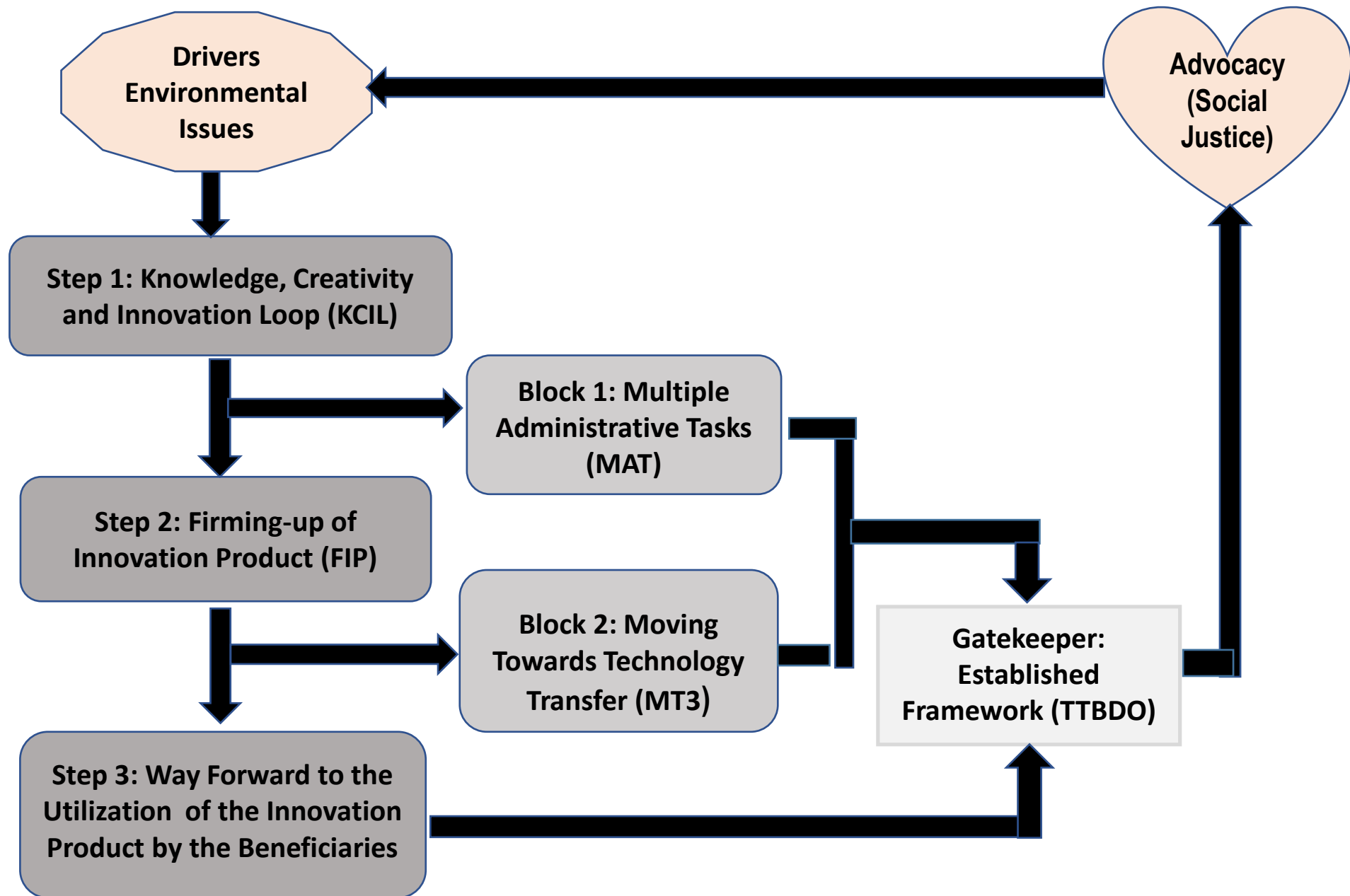
The diagram of knowledge diffusion

RESULTS AND FINDINGS

Organizational Elements that lead to Successful Innovation as Experienced by the Innovators

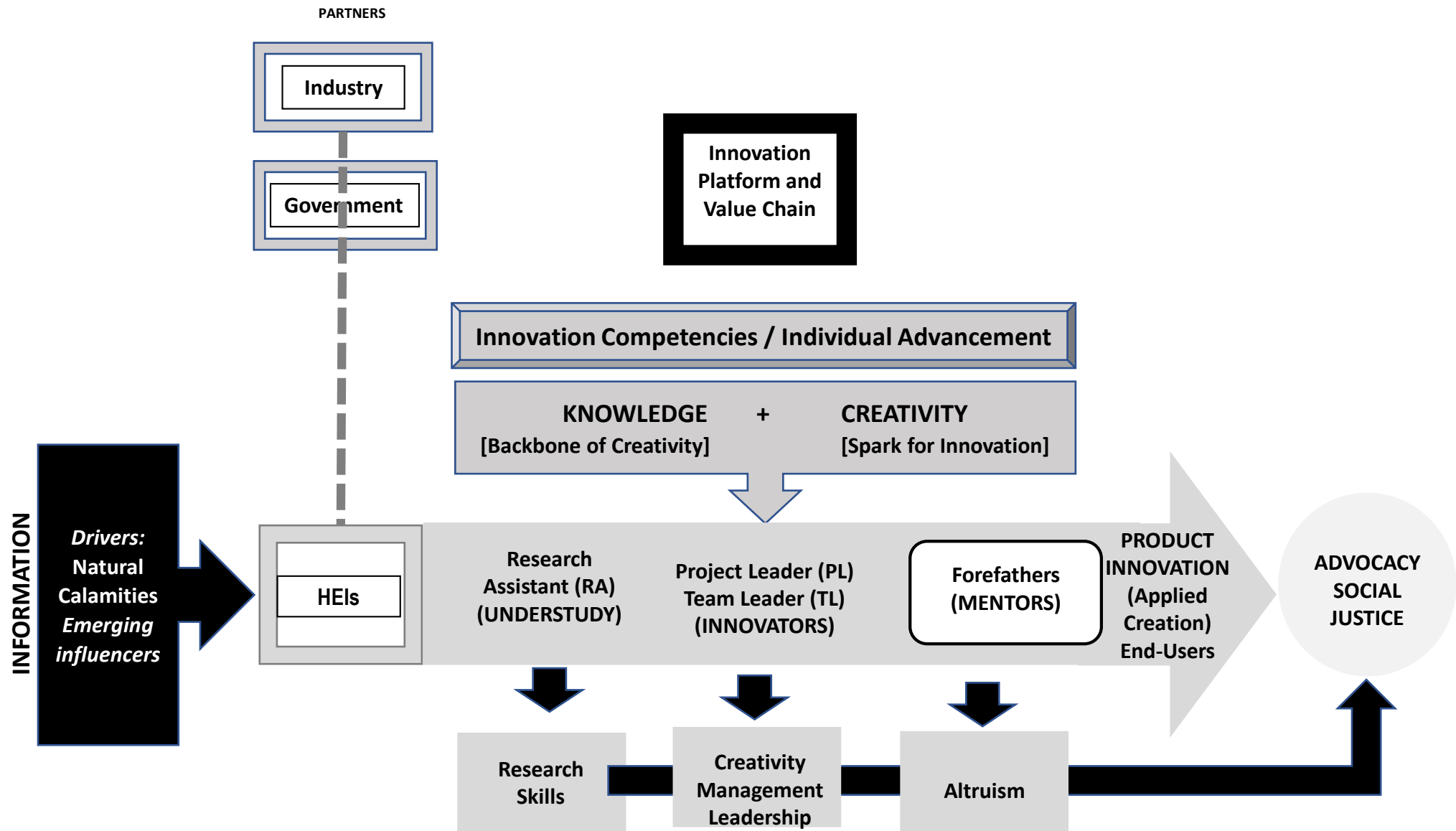
Category	Sub-category	Themes
Organizational Elements	Organizational Context	Management Style
		Know-hows of Innovators
	Organizational Culture	Procedural Process of Technology Utilization
		Cohesive Teamwork
	Organizational Values	Concern for Beneficiaries of Technology
		Consistent Appreciation of Mentors

RESULTS AND FINDINGS



Beyond organizational elements and innovations competencies, **other influencers emerged** that are important to innovation success.

- Family History
- Concept of Resonance
- Trait of persistence
- Tolerance
- Contentment over royalty and promotion
- Title does not matter
- Innovation is self-initiated
- Writing skills
- Prayers matter
- Humility
- The role of belief or religion
- The joy of laughter



An HEI Journey along the Path toward Agriculture Innovation

LIMITATIONS

- **Focus on one BIOTECH group**
- **Explore in deeper connections the influencers**
- **Validate in other areas the emergent model**

RECOMMENDATIONS

- **Open University research expertise**
- **Collaborative research and development agenda**
- **Stable Intellectual Training Service Office (ITSO)**
- **Streamlining the existing financing.**

“There are no idle lands, only idle minds.”

UPLB Mantra

Interviewing the gurus of innovation taught me to become more meek and humble, stay focused on one technology and keep on innovating, work for the people and not for my own self-gratification, and, most importantly, to become an agent and advocate of nature conservation vis-à-vis agricultural living. In His Time.

Marivilla Lydia Bulan Aggarao

