

Facing the Global Challenge to Raise the Innovation Power of Agrifood Companies

Wageningen Innovation Assessment Tool

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The Wageningen Innovation Assessment Tool (WIAT)

- WIAT elucidates the potential success or failure of a firm's running innovation projects by comparing the answers of the project team and experts with those for successful and failed innovation projects in the WIAT database.

Current Presentation

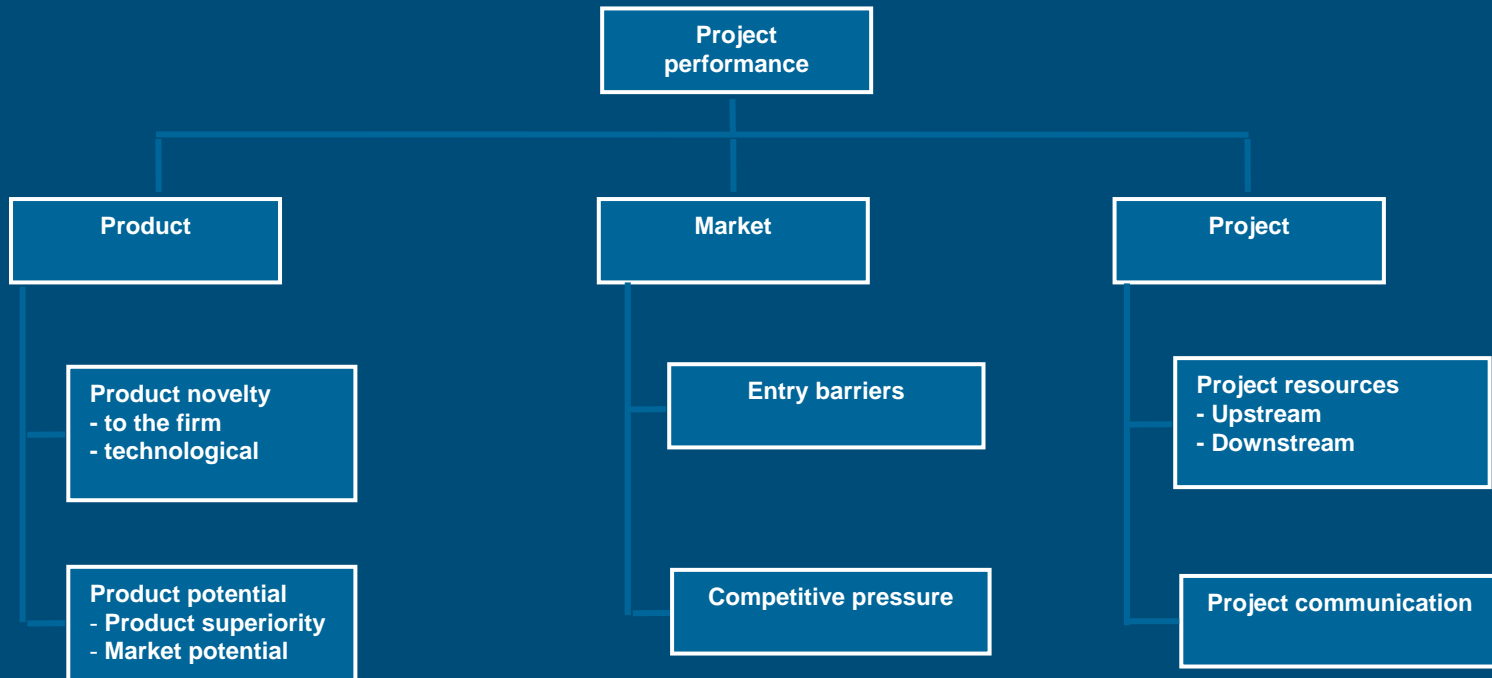
- Focuses on the WIAT database including innovation projects in agri-food and technology-based companies
- Explores the WIAT database structure using factor analysis and Cronbach α
- Elucidates and compares the key factors for success and failure of innovation projects in the agri-food and technology-based sector

WIAT Database

Number of projects Number of respondents
Success Failed Running Total Success Failed Running Total

Agri-food	21	11	35	67	71	39	142	252
Tech-based	9	10	28	47	30	35	216	281+
Total	30	21	63	114	111	74	358	533

WIAT Structure



Product Novelty

- **Novelty to the firm (5 questions, $\alpha = 0.757$)**

Nature of the production process, distribution system and/or type of sales force; advertising and promotion, customers and competitors are totally new for the firm

- **Technological novelty (4 questions, $\alpha = 0.797$)**

Technology is new for our company; product is highly innovative and totally new to the market; product is a high technology one and mechanically and/or technically very complex

Product Potential

- **Product superiority (5 questions, $\alpha = 0.813$)**

Clearly superior to competing products; first into the market; higher quality; offers a number of unique features; new applications to customers

- **Market potential (6 questions, $\alpha = 0.816$)**

Monetary value of the (existing or potential) is large; is growing very quickly; potential customers have a great need for this type of product; customers will definitely use the product; it has a high market potential; will contribute to the competitive advantage of the firm

Market Competition

- **Entry barriers (3 questions, $\alpha = 0.619$)**

Strong competitor(s) in the market. High customer loyalty to competitors' products. Frequent competitors' product introductions

- **Competitive pressure (3 questions, $\alpha = 0.791$)**

Highly competitive market, many competitors, intense price competition

Project Resources

- **Upstream resources (4 questions, $\alpha = 0.755$)**
Our financial and production resources; management and engineering skills are more than adequate for this project
- **Downstream resources (3 questions, $\alpha = 0.827$)**
Our marketing research skills, advertising and promotion; sales and distribution resources are more than adequate for this project

Project Communication

- Team cooperation (7 questions, $\alpha = 0.858$)

Good communication within my team; management expresses commitment; performance requirements are clear; in a new project I surely want to participate in the current team again; I completely understand project problems; team members are focused; satisfied with innovation process

Agri-food projects

Technology-based projects

	Success n=21	Failure n=11		Success n=9	Failure n=10
Product novelty					
Novelty to the firm		2.6	4.0		4.6***
Technological Novelty	4.7	5.2		4.1	4.2
Product potential					
Product superiority		6.7	5.8		7.0
Market potential	6.5	5.4**		7.0	5.9**
Market competition					
Entry Barriers	4.9	4.6		5.2	4.4
Competitive pressure	7.4	6.6		5.0***	4.7
Project resources					
Upstream resources	7.6/7.6	6.4**		6.8*	6.6
Downstream resources	7.4/7.4	6.4*		5.8***	6.0
Project communication	7.8	7.0*		7.6	6.5***
Performance	7.3	5.7***		6.8	5.9**



Results and Discussion I

- Expectation: Product potential and project communication crucial for successful innovation in both sectors (earlier research)

Partly confirmed

- Significantly higher scores for market potential and project communication for successful projects, but not for product superiority, in both sectors
- Expectation: Product and technological novelty more important for innovation in technology-based companies due to the urge for continuous innovation

Partly confirmed

- Considerably lower scores for novelty to the firm for successful projects than for failed projects (although not significant) in the agrifood sector
- Surprisingly, technological novelty and product novelty is not significantly related to successful or failed innovation projects in technology-based companies
- Significantly higher scores for novelty to the firm, but not for technological novelty, for successful projects in technology-based than in agrifood companies

Results and Discussion II

- Expectation: Availability of resources is more crucial for successful innovation in agri-food sector (earlier research)
 - Confirmed
 - Significantly higher scores for successful than for failed projects in the agrifood and not in the technology-based sector
 - Upstream and downstream resources are significantly more important for successful projects in the agri-food sector
- Competitive pressure: significantly higher scores for successful projects in the agri-food sector than in the technology-based sector

General Conclusion

- WIAT provides key success factors for innovation in the agri-food and the technology-based sector
- By detecting the key aspects that require attention or adjustment at milestones, WIAT helps companies to improve innovation project execution, raise the success rate of market introduction, and strengthen their competitiveness

Thank you for your attention

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