**AGRI-FOOD INNOVATION: STUDY OF THE CONSUMER'S PERCEPTION OF MONETARY VALUE**

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This PhD thesis research project is aimed at investigating the world of innovations in the agrifood sector, evaluating: the impact of the political tools thought to advance the implementation of the innovation in the firms and the effects that this implementation has on the market value of the innovative products or realized by the innovation process, measuring the consumers’ willingness to pay.

**INNOVAZIONE AGRO-ALIMENTARE: STUDIO DELLA PERCEZIONE DEL VALORE MONETARIO DA PARTE DEL CONSUMATORE**

L’obiettivo del presente progetto di ricerca consiste nell’indagare il mondo delle innovazioni del settore agro-alimentare, valutando: l’impatto degli strumenti politici pensati per favorire l’implementazione dell’innovazione nelle aziende e l’effetto che tale implementazione ha sul valore di mercato dei prodotti innovativi o derivanti da un processo di innovazione, misurando la disponibilità a pagare dei consumatori a riguardo.

# **1. State-of-the-Art**

The Oslo Manual 2018, titled "The Measurement of Scientific, Technological and Innovation Activities" and written by the Organization for Economic Cooperation and Development (OECD), defines the term "innovation" as "a new or improved product or process (or combination thereof) that significantly differs from the unit's previous products or processes and has been made available to potential users (product) or brought into use by the unit (process)". The term "unit" is used to describe the actor responsible for innovations. Politics, research, business, and consumers collectively play a role in this innovation process. Politics funds public and private research projects, which businesses implement based on consumers' demand. It is crucial that the relationships within this network are efficient and effective in order to achieve the sustainable development goals outlined in the Farm to Fork Strategy and the European Green Deal.

The growing interest in agri-food innovation has led to an inevitable increase in scientific publications on this topic, covering both innovative proposals and the assessment of innovative case studies. A bibliographic research was conducted to understand the current research trends in order to write a systematic literature review on the methods, tools, and theories used to evaluate innovation in the agri-food sector. The keywords "agricultural" OR "agri-food" AND "innovation" AND "assessment" OR "evaluation" OR "measurement" were entered into the Scopus database. Out of the 1185 results, 116 were deemed suitable for addressing the research question.

Several methodologies have been applied, with Life Cycle Assessment (Verdi et al., 2022; Vaglia et al., 2022; Stillitano et al., 2019) being the most commonly used. Many studies focus on evaluating the social, economic, and environmental impacts of innovations. Other examples include cost-benefit analysis and the Material Circularity Indicator (MCI) (Falcone et al., 2022) for evaluating circular economy aspects, Living Labs, SWOT analysis, and the Digital Economy and Society Index (Metta et al., 2022) for measuring responsible digitization in agriculture, and the Adjusted Food Sustainability Index, Policy Index, and Data Envelopment Analysis (Agovino et al., 2018) for evaluating policy efficiency in the field of food sustainability. These are just a few examples.

Therefore, although the initial plan was to evaluate the added value of innovation in the market through an analysis of willingness to pay, the best methodology, among those identified in the bibliographic analysis, will be developed by considering multiple variables such as research costs, time, the object of research, and the perspectives of the actors seeking to introduce the innovation.

# **2. PhD Thesis Objectives and Milestones**

Within the overall objective mentioned above this PhD thesis project can be subdivided into the following activities according to the Gantt diagram given in Table 1:

1. **Definition of the scope of innovation**. Due to the complex nature of the phenomenon, it is important to determine, based on the results of the bibliographic review, whether to develop the analysis considering: the entire agri-food sector, a specific supply chain or a precise phase of the supply chain (A1.1). Furthermore, the focus could be on product, process, or system innovation (A1.2), and the analysis may involve all actors of innovation, a specific actor, or a subset of actors (differentiating between supply and demand) (A1.3).
2. **Identification of the assessment method**. The appropriate tools will be acquired (A2.1) and the relevant data will be collected (A2.2) in accordance with the prescribed methodology and the actors under investigation.
3. **Application of the chosen method** to produce statistically significant data.
4. **Writing and Editing** of the PhD thesis, scientific papers and oral and/or poster communications.

***Table 1***Gantt diagram for this PhD thesis project.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Activity Months | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |
| A1) | ***Definition of the scope of innovation*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1) choice of the level of detail |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2) choice of kind of innovation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3) choice of the actors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A2) | ***Assessment method*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1) adoption of tools |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2) data collection |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A3) | ***Application of the method*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A4) | ***Thesis and Paper Preparation*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# **3. Selected References**

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