



Two-Viewpoints Distinguishing Methodological Mapping for Food Industry Issues. Introduction of Life Cycle Assessment

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Global population growth with access of individuals both researchers and profane to networking through the Internet and social media together with exaggerated demand for novelty have induced extremely high levels of accumulation and circulation of information. It is entailed with the development of various concepts related to food industry and nutrition. Unfortunately, taking into consideration that many of them are designs of authors with distant and often unqualified relation to problems of nutrition and food processing, such activities create the enormous amount of informational noise. With purpose to decrease the influence of mentioned noise on professionals and general public we have the obligation to act responsibly with a duty to maintain a balance between quantity and quality of information concerning the food industry issues. As an option to methodologically structure the understanding, we would like to introduce a two-viewpoints distinguishing mapping to analyse approaches to food industry topics. First element of the mapping is classical reductionist approach. Forming the basic patterns for modern science, researchers solved many problems of humanity but since Democritus' reductionist approach was ideologically preferred in the western science, much effort has been directed to the excessive value of details and analysis of processes from the point of view of their decomposition into constituent elements, parts, or small particles. But an overstudy of the chemical structure of nutritional ingredients, values of particular micro - and macro components of products and their effects on molecular structures, physiological effects, biofeedback etc., sometimes turns away the focus from general some issues such as general conditions or characteristics of particular product and holistic influence on health of population. Consequently, the reductionist

approach has resulted in an underestimation of the interrelations and interdependence of system components and leads to the loss of understanding of the systems "in a whole". This another mapping component is historically known as holistic. Holism was an idea firstly introduced by Plato, later developed by anthropologists who stated that all the properties of a given system could not be determined and explained by its component parts alone. According to Merriam-Webster dictionary - "Holistic means relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts". The deeper modern science goes into microlevel, chemical analysis, etc., the more it loses the focus of a healthy functioning of a system or a human body as a whole. In the 40s when in modern times holistic view migrated to healthcare the concept was actively popularized by the prominent public health leader Andrija Stampar. He wrote the introductory declaration of the Statute for the recently established World Health Organization and defined health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity". Logically, the concept can be effectively transposed to food industry where very often the final product not its part is much more important. Within the boundaries of this concept the different aspects of products, food processing, alimentary cultures and behavioural habits can be taken into account and consequently a bunch of new methods, tools and technologies can be introduced. Among such numerous approaches of a complex analysis the Life Cycle Assessment (LCA) can be introduced. Primarily it was adopted for environmental studies with the purpose of resolving environment-related problems of institutions, corporations, and organizations. The method was introduced in 1960s,

developing until late 90s, when it was organized as an ISO standard when it has become a practical method for product stewardship. According to designed LCA methodology every product in its life cycle passes through different stages such as raw materials extraction, refinement, processing, manufacturing, distribution, use, recycling, waste disposal etc., and should be analyzed in a frame of reference known as “from cradle to grave”. A life-cycle approach takes into consideration the spectrum of resource flows and interventions (e.g., environmental) associated with a product processing from a supply, consumption chain perspective. This means that any given product should be completely analyzed from the moment of its emergence in various systems - “cradle”, to the end of a life cycle - “grave”, when the product is disposed. The method can ultimately help to advance the sustainability of product processing cycles and can be effectively adopted to food processing industry.

Accompanied with the rising social responsibility, corporate social responsibility and such approaches as Lean - Philosophy, Six - Sigma, etc., the LCA can become a driver for the development and widespread application of such holistic methodologies to processes and activities in a food industry worldwide. We just have to keep in mind one ancient Russian proverb stating that “Everything new is a good forgotten old” which allows us to properly use holistic approach as a response to actual challenges in a modern world.

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