

The Need for Automation in the Domestic Food Processing Sector and its Impact

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Abstract : The objective of this study is to address the critical need for automation in the domestic food processing sector and study its impact. Food is the one of the most basic physiological needs essential for the survival of a living being. Some of them have the capacity to prepare their own food (like most plants) and henceforth are designated as primary food producers; those who depend on these primary food producers for food form the primary consumers' class (herbivores). Some of the organisms relying on the primary food are the secondary food consumers (carnivores). There is a third class of consumers called tertiary food consumers/apex food consumers that feed on both the primary and secondary food consumers. Humans form an essential part of the apex predators and are generally at the top of the food chain. But still further disintegration of the food habits of the modern human i.e. Homo sapiens, reveals that humans depend on other individuals for preparing their own food. The old notion of eating raw/brute food is long gone and food processing has become very trenchant in lives of modern human. This has led to an increase in dependence on other individuals for 'processing' the food before it can be actually consumed by the modern human. This has led to a further shift of humans in the classification of food chain of consumers. The effects of the shifts shall be systematically investigated in this paper. The processing of food has a direct impact on the economy of the individual (consumer). Also most individuals depend on other processing individuals for the preparation of food. This dependency leads to establishment of a vital link of dependency in the food web which when altered can adversely affect the food web and can have dire consequences on the health of the individual. This study investigates the challenges arising out due to this dependency and the impact of food processing on the economy of the individual. A comparison of Industrial food processing and processing at domestic platforms (households and restaurants) has been made to provide an idea about the present scenario of automation in the food processing sector. A lot of time and energy is also consumed while processing food at home for consumption. The high frequency of consumption of meals (greater than 2 times a day) makes it even more laborious. Through the medium of this study a pressing need for development of an automatic cooking machine is proposed with a mission to reduce the inter-dependency & human effort of individuals required for the preparation of food (by automation of the food preparation process) and make them more self-reliant. The impact of development of this product has also further been profoundly discussed. Assumption used: The individuals those who process food also consume the food that they produce. (They are also termed as 'independent' or 'self-reliant' modern human beings.)

Keywords : automation, food processing, impact on economy, processing individual

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