

## ABSTRACT

**Keywords:** Costs of poor quality (COPQ), Activity-based costing (ABC), Prevention and Appraisal costs, Internal and External failure costs, Break-even point

Despite the deteriorated economical situation, the food-manufacturing sector in particular is one of the promising sectors in Palestine, for the reason that it contributes to the development of national economy and society by increasing its share of gross value added and decreasing the unemployment rate.

In today's open and free trade market, the increased competitiveness is one main issue threatening the food manufacturing sector market share, in particular. Therefore, reducing COPQ while ensuring an acceptable level of products quality is one effective approach that food-manufacturing sector can follow to raise its competitiveness capacity and gain more market share.

The purpose of this study is to build an activity-based COPQ model to be implemented at the food manufacturing sector in Palestine. Then, to apply the model by means of conducting one real case study aiming to identify, categorize and express existing COPQ in dollar amount in order to open the eyes of managers on such costs. Moreover, to explore areas where to initiate improvement projects that can help food-manufacturing sector reduce costs and improve quality.

For meeting study objectives as well as examining the questions raised in this study, the study procedures can be divided into three main stages. *Firstly*, a preparatory study through an extensive literature review was conducted. It involves relevant issues such as COPQ concepts, existing approaches used for assessing, categorizing and measuring quality costs, and the situation of Palestinian manufacturing sector. *Secondly*, an activity-based COPQ model, upon which work is based, was built based on existing approaches and models used for assessing, categorizing and measuring COPQ. Then, it was refined to suit the food manufacturing sector's experiences and environment. *Finally*, the model was applied by means of conducting one real case study under actual conditions at one of the top large and well-developed food manufacturing organizations in Palestine. The model primarily examined the COPQ existing at the selected case, and prioritized the identified COPQ areas that are considered as opportunities for cost reductions and quality improvement.

The results reveal that the four categories of the COPQ do really exist at food manufacturing sector in Palestine and can be determined systematically in terms of prevention, appraisal, internal and external failure costs by using developed activity-based COPQ models that suit organization's experiences and environment. Total

internal failure costs category is found to account up to 96% of the total COPQ where material rework costs constitute the highest portion of the total internal failure costs, which then considered as a vital opportunity for costs reductions. Furthermore, it is found that total COPQ account up to more than 9% of total gross sales, whereas they account up to 14.11% of total variable operating costs. As for the effect of COPQ on break-even point, it is found that if such costs were eliminated the break-even point will decrease by 19.11%. As a result, it is found that the built-on activity-based COPQ model introduced in this study is to be considered as an effective technique, when implemented appropriately, that food manufacturing organizations in Palestine can apply and implement to reduce costs and improve quality.