
Implementing an Enhanced Food Safety Metasystem: Conceptualization and Empirical Examination of Intended Benefits for Agri-food Processing Firms in Sri Lanka

UK Jayasinghe-Mudalige*, SMM Ikram, JMM Udugama, JC Edirisinghe and HMTK Herath
Department of Agribusiness Management, Wayamba University of Sri Lanka.

Abstract

Food quality and safety is one of the seriously discussed issues in the agri-food sector. As a result of food safety control reforms, customer requirements and regulatory changes, agri-food processing firms are adopting different forms of food quality and safety metasystems including ISO 22000 and HACCP. Drawing from the works on expectation-disconfirmation theory, this paper advances that a firm has pre-adoption expectations of benefits when implementing a food control system and perceived benefits based on post-adoption experience; to what extent the expected benefits were realized by the firm. The level of satisfaction with a given food control system will depend on the perceived performance of the system relative to firm's expectations and this will influence firm decisions on whether to continue with the certification into the future and also decisions that might arise on upcoming/novel quality assurance systems in the long term. This study aimed to identify the intended benefits of implementing a food safety metasystem and a qualitative exploratory approach was utilized. An extensive review of literature was carried out followed by Focus Group Discussions and In-depth Interviews with three sets of respondents: managers, academics, and quality management system auditors, and the data analyzed using N-Vivo (version 7.0) qualitative data analysis software. The results revealed that the most common benefits expected were in the areas of market share, corporate reputation, product shelf-life, international marketing, and as a response strategy for demands from some specific stakeholder groups, such as the central and local governments, surrounding community and local health inspectors.

Key words: Agri-food processing sector, Benefits, Expectation, Food safety, Perception

Introduction

In the post-conflict period, Sri Lanka is aiming to grow in all sectors of the economy. The agri-food processing sector is one such key sphere of focus. The role of quality assurance, in general, and food safety, in particular, is one of the seriously discussed issues in this sector. Obtaining food that is appropriately priced and deemed safe to eat is the right of every consumer. The quality of the food consumed by the people of a country is directly related to their physical and mental well-being and as such a large part of the responsibility to provide safe food falls upon agri-food processing firms (Jayasinghe-Mudalige 2009). As a result of reforms in food safety controls, requirements from customers and changes in regulations, these firms are adopting different forms of food quality and safety metasystems including ISO 22000 and HACCP. In this regard, the principal proposition argued here is that prior to adoption of such enhanced food safety metasystems, firms are guided by number of intended benefits, which the decision-

makers within the firms believe, will be obtained as an outcome of adoption. During the post-implementation period firms evaluate whether the intended benefits of adoption have been realized or whether unexpected costs have risen in comparison. This evaluation and subsequent judgments are critical factors that will influence firm decisions on whether to continue with the certification into the future and also decisions that might arise on upcoming or novel quality assurance systems in the long term. This study aimed to understand this, hitherto poorly assessed dynamics of adoption, as to identify the intended benefits of implementing a food safety metasystem.

Material and Method

Addressing this from the works on expectation-disconfirmation theory from consumer behavior literature (Oliver 1980; Lilien et al. 2005), it can be stated that a decision-maker within a firm has pre-adoption expectations of benefits when implementing

a food control system and perceived benefits based on post-adoption experience; to what extent the expected benefits were realized by the firm. The level of satisfaction with a given food control system will depend on the perceived performance of the system relative to firm's expectations; the relationship between the expected and perceived benefits. It can be argued that the outcomes realized by a firm, and perceived by the firm's management is the principal determinant on the continued implementation of a food safety system within that firm (Lo and Chang 2007). In order to identify these intended benefits, an qualitative exploratory study was undertaken. Initially an extensive review of literature in this area was carried out to identify factors related to benefits, costs, motives, constraints, and impacts of adopting enhanced food safety controls. Three sets of respondents were selected for assessment: (1) Managers (quality assurance/general managers) from 15 large-scale agri-food processing firms (HACCP/ISO 22000 adopted at least two years ago, and having implemented more than one quality management system); (2) 12 academics from national universities (specialized in the areas of food technology, food marketing, and food quality assurance); and (3) Five quality management system auditors/executives from the Sri Lanka Standards Institution. Focus Group Discussions (supported by a Discussion Guide) and face-to-face in-depth interviews (supported by a Structured Interview Schedule) were carried out with the above resource persons to extract their views, perceptions and ideas on this matter and also to expand and scrutinize on the factors extracted from literature. The interview and discussion session were voice recorded and transcribed. The data collected from the exploratory and review sessions were analyzed through N-Vivo (version 7.0) qualitative data analysis software. Initially all the transcripts were merged and read by travelling back and forth between the data, to isolate first-order codes (Figure 1). These were coded onto create theoretical codes and aggregate theoretical dimensions (Pratt et al. 2006).

Findings

The most common benefits expected were increased sales, improvement in the image of the company, the ability to satisfy export market requirements, satisfying customer needs, and improved efficiency within the

plant. Other related aspects such as the ability to charge a premium for their products, differentiation within the marketplace, reduction in customer complaints and product related problems, ability to supply to new export destinations and limiting the interference of external entities on the firms were also strongly expected benefits of certification.

Upon further consideration of the developed codes and associating it with the extant literature, we derive a number of concepts that are genuine expectations of food processors when it came to implementing a food safety metasystem; theoretically sound and defined from the firms' perspectives. Increased market share as a result of certification is a predominant concern. Generally all other outcomes are related to this expected benefit within the decision-makers' minds. These companies are equally concerned about their corporate reputation, and presume that the adoption of a food safety management system will improve this. On a more technical basis, they aim for prolonged shelf life for their products, but this also comes out of the need to reduce complaints from their customers. Agri-food companies have considered food safety control systems as improving their capabilities for international marketing. Interestingly, adoption has in addition been viewed as a response strategy for demands from some specific stakeholder groups, such as the central and local governments, surrounding community and local health inspectors.

Implications

The exploratory analysis revealed diverse categories of benefits intended by agri-food processing firms when adopting an enhanced food safety metasystem. The next stage in this study would require the utilization of these findings; in quantitatively assessing the extent to which the firms have realized the expected benefits identified in this stage.

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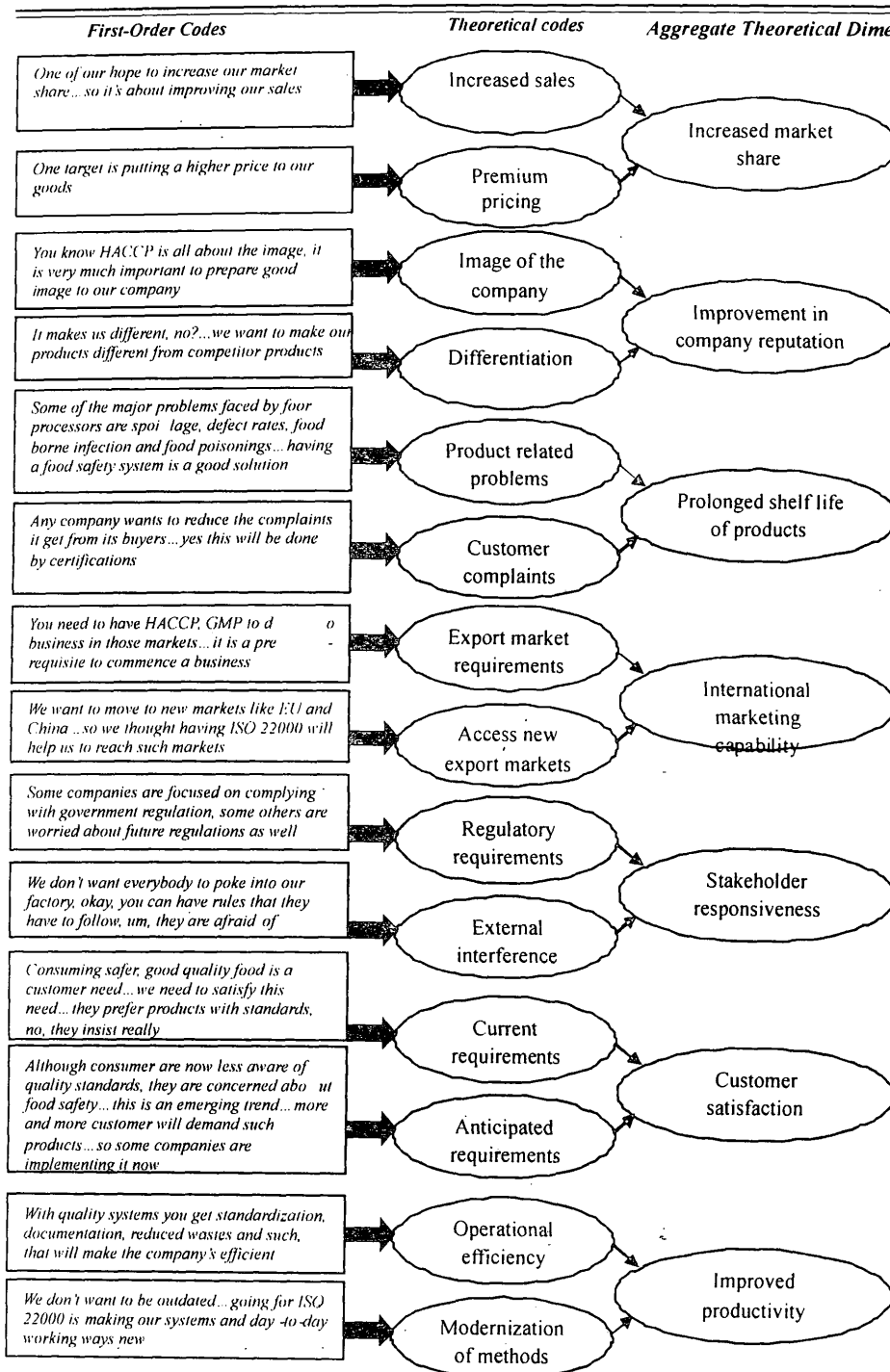


Figure 1. Deriving expected benefits of adoption through coding techniques

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