

IMPROVING ADOPTION OF FRUGAL MEDICAL INNOVATIONS

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ABSTRACT

In today's economic environment, the concept of frugality in products is receiving attention. In developed countries, where cost is an afterthought, improving adoption of frugal medical innovations for medical consumers is a challenge. This research reviews the relevant literature related to frugal innovation. We examine the value proposition of frugal products in healthcare sector, especially in low resource countries. Through this research, we propose a theoretical framework of adoption of frugal medical innovations. The success of a frugal medical product adoption will largely depend on how well it fulfills the needs of consumers without higher cost tradeoff. Policy implications for viable frugal medical products are also discussed.

Keywords: frugal innovation, medical industry, low resource countries, product adoption.

INTRODUCTION

In a post-recession economic environment, the concept of frugality in products is receiving attention. Rise in globalization around the world is leading to a closely interconnected world, one that is more densely populated and urbanized. While globalization is leading to a spread of prosperity and a higher standard of living, the unintended side effects include proliferation of diseases and health complication on a global scale.

As diseases and health complication proliferate around the globe, it makes the need to innovate and adapt modern medical products for the new environments. For the most part, embarking on innovative pursuits in medical and other industries translate into added expenditure and require extensive resources. In developed countries, cost of medical products is usually an afterthought for users (patients) and/or medical providers (physician) as the payer (insurance firms) usually deals with the expenses as part of the prevailing medical reimbursement model. Not so in the developing countries as third-party reimbursement models are virtually non-existent for all practical purposes. These countries are increasingly witnessing low-cost innovations, which are often called frugal innovation [1] or grass-roots innovation [2].

The idea of frugal innovation is often discussed with regard to economies in emerging countries such as India and China as current US medical reimbursement models eliminate any incentive to adopt frugal innovations [1]. Frugal innovation is an overarching concept that enables a clean sheet approach to product development. Cost minimization is an integral part of the frugal innovation process. Instead of focusing on cutting costs, frugal innovation seeks to avoid unnecessary costs to begin with. Making use of materials and resources available in a specific situation is emphasized over 'standard' items and components in product's bill of materials. Besides lack of resources, the concept of frugal innovation may emerge from an imminent need for a solution or an emergency that forces innovators to apply 'out of the box' thinking and identify novel, low-cost ways to work with what they have.

THE ADOPTION PROCESS

Even if medical product innovations are accomplished frugally, it does not inevitably lead to acceptance and adoption by general population of medical consumers. The innovation adoption process can be viewed as a cognitive decision-making exercise. That is, it requires medical consumers' abilities to perceive, comprehend, and interact with their medical product environment in an intelligent manner. In that sense the person, the context, and the environment play a crucial role in the process. Several researchers ([3], [4], and [5]) have described different stages of the adoption or change process, which is presented in Figure 1 below.

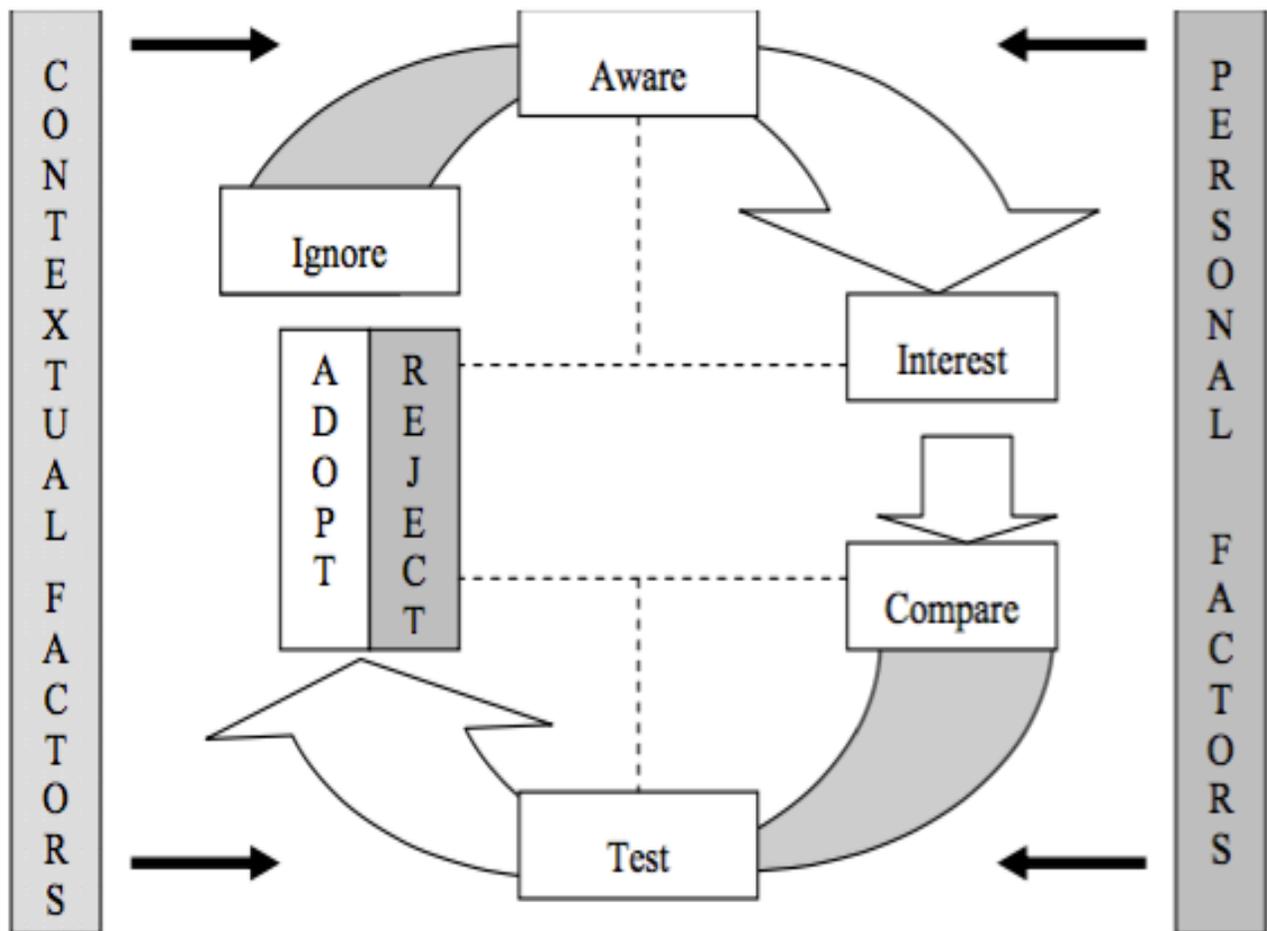


Figure 1: Stages of innovation adoption process ([3], [4], and [5]).

In the paper, we examine adoptions of frugal medical innovations from multidimensional lens perspective. The posited framework considers well-accepted adoption theory schools of thoughts, such as the theory of bounded rationality [6], the theory of extension [7], the theory of diffusion of innovation

[4], among others, to understand how users of frugal medical innovations eventually decide to adopt such products.

It is conceivable that the adoption of a frugal innovation is a process that happens deliberately over time. The multidimensional perspective is broken down into different stages (see figure 1) to better understand the innovation adoption process in context of users of frugal medical products.

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