

Predicting Adoption Rates for Innovations: Four Offers Compared¹

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One of the big problems for managers launching new products and services is to try to estimate demand. While still a concept, some approximate forecast must be prepared to enable the operation to be designed and costed (both capital and operating cost). With incremental improvements such as Gillette Fusion, it should be a comparatively straight forward task (although predicting the rate at which people would switch from Mach 3 to Fusion is not trivial, the likely end point should be reasonably accurate). However, even for incremental innovations, massive errors occur such as with New Coke, “the easiest decision we’ve ever had to make” according to CEO Roberto Goizueta pre-launch. But broadly we expect these forecasts to be of the right order of magnitude.

When the product is really new, the problem becomes much more significant, and errors of 10 times or 100 times are not uncommon. It is hard to know how customers will evaluate these products – they may not know themselves. For most of us, the mobile phone is now an essential accessory and is arguably the most successful new product of all time (there are now over 4 billion mobile subscriptions in the world). The most conservative estimates put the birth of the mobile as far back as 1978 (some would argue 1970 as the more appropriate birth date). Thus while it took the mobile 30 years to get to 4 billion, it took 20 years to get 320m, and has doubled over the last 3 years. Before launch, even with the example of the fixed line telephone around for 75 years, few anticipated the extent of the impact the mobile would make and less would have correctly predicted the trajectory of the diffusion. Yet the profitability of new markets depends on both (and then the profitability of individual companies depends on their ability to seize a sufficient part of that demand).

Techniques exist for forecasting take-up of new products. The most widely used techniques are strongly dependent on accurate estimation of the market potential and suitable analogous products. The market potential is often constructed as the sum of likely penetration by segment. The rate of take-up is (best) forecast by considering the take-up of similar products (frequently by disaggregating it into company-stimulated and word-of-mouth stimulated demand).

But the first step in forecasting demand is to evaluate the attractiveness of the innovation. What does it bring and what does it take away? To what extent are we asking people to change behaviour or are we presenting something conflicting with existing values or beliefs? How should we determine whether or not these will be a success?

Please look at the four innovations presented below and rank them according to how fast you think they will diffuse in the marketplace and why? Be specific about what factors make this likely to diffuse quickly or slowly (or not at all). The idea is that you think about the issues rather than research the topic further. The aim is to have a framework to consider these issues.

¹ With thanks to John Gourville for the idea for this case and acknowledging any shortcomings as my own

The Four Innovations² (prices correct on amazon.co.uk/ overstock.com on 19/09/11)

1. Elastoplast Fast Silver Healing: £3.27 for 10

<http://www.elastoplast.co.uk/products/wound-care/fabric-antibacterial>

http://www.amazon.co.uk/Elastoplast-SilverHealing-Fabric-Plasters-10s/dp/B001E1B788/ref=sr_1_3?s=drugstore&ie=UTF8&qid=1360583994&sr=1-3

2. Scooba floor cleaner: from £249 to £349

<http://www.irobot.com/uk/store.aspx>

http://www.irobot.com/uk/store/store_products.aspx?id=30

3. iTouchless Fingerprint Deadbolt Lock: £257.68

http://www.itouchless.com/share/cgi-bin/site.cgi?site_id=itouchless&page_id=biomaticdeadbolt

<http://www.overstock.com/Home-Garden/Fingerprint-Silver-Finish-Deadbolt-Lock-Universal/2449164/product.html?cid=133635>

4. Lynx Dark Temptation Deoderant Bodyspray: £2.49 for 150ml spray

<http://www.lynxeffect.com/uk/home/lynx-full-control/>

http://www.ciao.co.uk/Reviews/Lynx_Dark_Temptation_6838274

² In the time between finalising this case and using the case some links may break. The main link is simply an introduction to the idea. Where possible, I include access to some review(s); these may vanish.