



## I've seen some automation companies cost-justify their products on an hourly cost-basis. Does this make sense?

**I**t depends on how the hourly cost is calculated. Let's take a dispensary robot as our example: At \$200,000 a 3-year return on investment (ROI) is \$66,667 per year. There are two ways you can calculate the cost per hour of this investment. The first is simply to divide the cost by the total hours the pharmacy is open (assuming 12 hours a day and 364 days a year)  $\$66,667 / 4368 = \$15.26$  per hour. This is how many automation companies try to justify their technology and at \$15.26 an hour, it looks like a pretty good deal. However there is a flaw.

Consider a pharmacy technician under your employ, earning the same \$15.26 per hour. What would you say if you noticed that 50% of the time your employee was not working? Wouldn't you consider that their cost was actually \$30.52 per hour? When you pay an employee an hourly salary you expect them to be productive – at all times. Call it a *productive* hourly cost.

*The robot in our example certainly is not working every minute of every day. It will often be inactive between prescriptions and during slow periods it may be inactive for many minutes at a time, even though you are "open for business".*

A better way to look at calculating the hourly cost of technology would be to find its' productive cost per hour but this would also be misleading because more efficient technology will process prescriptions faster and will therefore (given the same workload) actually have longer periods of inactivity.

So our conclusion would have to be that specifying an hourly cost is misleading in either case and is therefore not a very useful way of analysing technology.

What you actually want to analyse is the beneficial difference between the costs of having technology process your prescriptions vs. personnel. If the technology can process more than a technician at similar cost then the technology is worthwhile. If the technology takes longer or costs more to process the same number of prescriptions, then it's probably not worthwhile.

Technology companies with a thorough understanding of the ROI process will not rely on hourly-cost arguments but will instead present thoroughly documented benefit realization studies (BRS) for their product(s).

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(For more information on cost-justifying robots see *The Efficient Pharmacy*, Vol. 3, No. 3 "Robots for Community Pharmacy").