Cost Analysis of Paper and Digital Forms
It’s All About the Bottom Line

Nearly all business decisions come down to one thing: cost. Debates about cost efficiency in business are always prevalent, but one question seems to come up more often than all the others. That is the Paper vs. Digital Forms case.

Some managers have kept paper forms because of their distrust of technology, complacency with current methods, or employee resistance. Still, other leaders have dove head-on into technology, leaving paper forms flying in the past. What’s most important for a business, though, is its bottom line.

So let’s put aside the uncertainty, impressions, and anecdotes and look at the hard numbers.
Material Costs

Paper Forms

Material costs can be broken down into two categories: the price of the forms and the price of circulating them. So how does paper rank in those two areas?

The average office worker in the United States uses about 10,000 sheets of paper per year ([InformIT](#)). Given the average size and cost of a case of paper, that worker costs his company $80 per year in physical pages. If your small business has 15 reps, you are paying **$1,200 per year for paper alone**.

Once those papers are paid for, back-office managers must print the appropriate information on them for field reps. Estimates show the current cost of one printed page as a little over three cents. Let's say your business of 15 reps is conducting 100 jobs a week (5 jobs per rep per day) and each of those jobs require five printed pages. You would then be printing 26,000 pages per year. This modestly estimates a printing cost of **$780 per year**. Though this doesn't seem like a big number, the time involved in filing, analyzing, and tracking these papers becomes a serious burden, which we will see in the Time Cost portion of this analysis.

Digital Forms

You’re thinking, “Wait, aren’t I getting rid of materials all together with digital forms?” Well, yes and no. Paper goes out the window, but you still need a vehicle for your forms. Namely, a smartphone or tablet. (To contrast the benefits of each, see our *Best Practice Guide for Monitoring Employees in the Field* BPG graphic?)

The discussion on the material cost of digital forms must begin with BYOD vs.
COPE. These represent the two concepts of ‘Bring-Your-Own-Device’ vs. ‘Corporate-Owned-Personally-Enabled.’

COPE

The COPE strategy allows businesses to have standardized technology and insurance for broken, stolen, or lost materials.

Though COPE has its benefits, it can quickly get expensive. Some phone companies offer business plans that run at about $1,600 per month for 20 reps. if the benefits of COPE are pertinent to your business, you're looking at $19,200 per year for mobile devices.

Luckily, COPE is not the only way to put a device in the hands of a rep. Often, they already have one there. That's how BYOD works. Instead of the company providing hardware, the employee uses their own. A study by MarketingCharts.com showed 65% smartphone penetration in the US, an 11% increase from the year before, which means most of your reps will already have the tool they need to make the switch from paper to digital forms.

BYOD

BYOD is a lot easier on the company's wallet, as it completely eliminates the material cost of a device. It also lends itself to an easier transition into digital forms. Because reps already know how to operate their device, management can save significant time on introducing new hardware. For the purposes of cost analysis, we will assume the company decides on a BYOD path. So, at this point, you have NO material costs for hardware at all. But you still need access to the digital forms. How does that work?

The most cost-effective option for digital forms is a Field Activity Management software. Usually, this comes in the form of an application your reps can download to a smartphone or tablet. There are two main types of apps for small business field management.
The first is a ‘pay-per-franchise’ app wherein a business pays a flat rate for all the services the app provides. The average cost for this type is $115 per month for the whole company. For a year, the “pay-per-franchise” app will be about $1,380.

The second is a ‘pay-per-rep ’ app, which gives the business the ability to only charge for the reps it has using the app. On average, this type costs $37 per rep per month. Additionally, some Cloud-based solutions offer it for as low as $15 per rep per month. If you have 15 field reps, you could be paying as little as $2,700 per year for your material cost. If you average the cost of these two options, the material cost of an app will be about $2,040 per year.

It is important to keep in mind, though, that when a business invests in a Field Activity Management app, they are paying for much more than forms. Often these apps come with GPS tracking, time clock, and messaging abilities. So while it may seem the material costs for Paper vs. Digital forms are close, you’re really getting a lot more value for your money when you choose digital.

*This cost analysis is based on estimated averages and has been multiplied to reflect the cost for a business of 15 field reps.
Storage Costs

Paper Forms

The existence of forms, whether they be paper or digital, costs a business money. The real divide appears, however, when you begin talking about the storage of those forms. Whether you put pen to paper or finger to phone, that data has to be stored somewhere. So how much does paper storage cost in comparison with digital storage?

After time, paper begins to weigh itself down. According to efficiency expert K.J. McCory, the average filing cabinet uses up 15.7 square feet of space. Given that the average office space in the US costs $15-20 per square foot, the space for one filing cabinet will cost a company about $275. If a business of 15 field reps has one cabinet per three employees (5 cabinets) the storage cost will jump to $1,375.

On top of space, a business must also purchase the actual cabinets. The lowest price on Amazon for an "office filing cabinet" is about $158. If you take even that bare minimum price, for your 15 reps, the price of the units comes to $790. The storage and actual cost together will come to $2,165.

Digital Forms

The beauty of digital forms is that they take up no physical space, and therefore, cost a lot less money. Once data is produced from digital forms, it must be stored, just like paper. But instead of pushing that information into filing cabinets, businesses push it into the ‘Cloud.'
Think of the Cloud as a virtual filing cabinet. It can store static data you may need in the future and hold information until you need to share it with others. There are two important differences, however: 1) the information in the Cloud can be accessed anywhere, anytime, and on any device; and 2) the Cloud literally takes up no physical space.

Most SaaS (Software-As-A-Service) Companies, which offer Field Activity Management apps, offer Cloud storage as part of their package. When deciding on new technology, some businesses choose to hire an outside party to develop a customized software. One downside of these unique types of software is that they can come without Cloud storage. Businesses would then have to purchase Cloud storage space to host all of their digital data. Depending on the size of your business this can be anywhere from $50-500 per year. A business of 15 reps could then be spending $275 per year on Cloud storage.

Luckily there is software that offer both digital forms as well as Cloud capabilities. In fact, many of them perform additional actions like GPS tracking, time clock abilities, and real-time financial analysis. If your business chose this path, the storage cost of the Cloud would be wrapped up in your material cost of the app, as discussed before.
Time Costs

Paper Forms

You’ve heard the expression “time is money,” and it could not be more true for small businesses. Paper forms come with significant material and storage costs, but they also lead to opportunity cost. The time field reps spend filling out and sending paperwork is time they could have spent developing client relationships. The time back-office managers spend filing and analyzing paper forms is time they could have spent growing sales. In fact, nearly 50% of small business owners that switched to digital forms said they had more time to focus on revenue, according to a survey done by TechnoMetrica.

It’s difficult to articulate the dollars lost from opportunity cost, but hours spent on inefficient tasks can be roughly determined. A report published by SBE Council estimates that before switching to digital forms, approximately 11 hours of field rep time and six hours of owner time were being used for administrative overhead each week, such as recording mileage logs, organizing paper forms, and filling out timesheets.

If we assume the average field rep is making the federal minimum wage ($7.25/hour), which is a modest estimation), then those 11 hours a week cost a small business about $4,147 per year. According to PayScale.com, the average small business owner makes $73,225/year, roughly $35/hour. Those six hours a week are then costing the small business an additional $10,920 per year.

Add those together and then your business might be losing $15,067 per year because of inefficient use of time.

On top of that, research from Xerox shows that for every dollar spent on printing assets (such as a printer), $9.40 is spent in IT support, administrative management,
and service check ups. That means if you buy a $250 printer, you will spend nearly $2,350 just on the upkeep of the technology.

Digital Forms

One of the most important motivators beside cost for the switch from paper to digital is time. There is almost no task in which paper forms are faster to use than digital forms. Giving clients a look through your catalog can be done faster with a tablet than a binder of paper. Keeping track of mileage in a field vehicle can be done automatically with digital forms, eliminating the need for manual input. And most importantly, taking your data from filing cabinets to the Cloud allows you to look at the ‘big picture’ and analyze everything in real time.

Familiarizing your field reps and back-office managers with a big hardware and software change can be daunting and time consuming. Some employees aren’t comfortable with new technologies; some will learn faster than others. These challenges intensify if your business decides on custom software with a complex interface.
Many business owners are attracted to the COPE hardware strategy paired with a custom software option, mostly because they believe their services or activities are extremely distinct from others in their industry. The biggest problem with this choice is time. It takes time to develop software from the ground up, and your employees are stuck in limbo until the initial product is ready and will be frustrated when updates interrupt their day-to-day work.

If we guess it will take 10 hours to train each employee on a new hardware and/or software, and each makes the federal minimum wage of $7.25/hour, a business of 15 reps would have to invest about $1,087 just to get started.

This time cost can be avoided, or at least significantly shortened, if a business chooses the BYOD hardware strategy paired with an existing SaaS based solution. If employees are already comfortable with their device, adjusting to an app that has already been tested in many different markets will be easy; thus, training time will reduce significantly, if not completely disappear.
Key Takeaways

There are two things to note when comparing the data compiled below: 1) The Material Cost of an app will almost always be paying for other capabilities of Field Activity Management software like GPS and data analysis. 2) The Time Cost involved with training employees on a new technology will be a one-time investment cost, whereas businesses will continue to pay for the time cost of paper over and again.

So where do we end up with all this information? While the numbers may lead you to believe that going digital with a COPE hardware and custom software solution is more expensive than paper, this interpretation would be cheapening the big picture. The number is higher, yes. But as noted before, the Time Cost involved with this option is a one-time expense. Additionally, the tech-based industry, which creates business solutions, will continue to grow. That means, there will be more options, and therefore, more flexible prices. This cannot be said about the overall cost of paper. The price of materials, storage and time will only increase for paper as time goes on.

In addition, it is important to note that COPE is not your only choice for digital forms. In fact, a BYOD hardware and Saas software solution is significantly less expensive than paper forms. Enabling your employees to use the tools they already have and giving them access to an inexpensive, grounded software will not only save you money, but will increase efficiency and revenue. So while clinging to paper forms may seem comfortable now, switching to digital forms will immediately begin saving your business money and will develop a platform to increase revenues for the future.
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<tbody>
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