

The Great Solvent Debate

I find myself caught at the moment between the proverbial Rock and a Hard place.

My function as an entrepreneur is to maximise profits. The question however, is what is an acceptable cost to society for me to achieve my objective. Is it, like a lot of people claim, "at any cost", or do I have a responsibility to count the cost? Furthermore, is the definition of profit a pure accounting one, or is the calculation more complex and should we try and balance it with society's cost?

Adam Smith would argue that I should forget everything and pursue my selfish goal. This would automatically benefit society. Adam's premise is that everyone has free access to information and therefore any actions I take, that are detrimental to society, would automatically be rejected by society and therefore I would not profit for very long. Adam in theory is correct, but for one thing, Adam's world was based on Agriculture and Society's knowledge base was fairly small. Given the current trend of the world doubling its knowledge base every 10 years, how then, does society prevent the unscrupulous operator from taking advantage of a knowledge gap?

The internet coupled with the Freedom of Information Act in the USA, followed by some more astute countries around the world, has proved the undoing of many of these dastardly operators and once again proves Adam to be a most perceptive individual.

However, what of countries or whole continents where the relative density of Internet is a small fraction of the population and is generally limited to the very entrepreneurs who society must sit in judgement of? Does the entrepreneur have a duty to behave otherwise in these societies? The very success of pyramid schemes based in the USA and Canada that have been found wanting in their own societies by the sheer mass of negative information on the Internet, but who still flourish in Africa is a case in point.

Solvents or VOC's (Volatile Organic Compounds) are dammed by thousands of Web sites around the world. As a whole, these sites are very reputable Scientific or Government Agencies.

Now I find myself in a quandary as arguments by clients of mine are numerous for the need to supply

solvent inks for digital printing. Do I maximise my profits or society's profit.

The arguments are:

1. "We have been using these for years in silk-screening so what is the difference if you supply us a machine using solvent inks."
2. "Its not my problem, but my employees problem"
3. "South African Law will not change soon, so why should I worry."
4. "Let someone else worry about the environment, its not my problem and I have to compete with Blikkies down the road who is using a solvent printer"

I suppose I shouldn't be shocked, **BUT I AM SHOCKED BY THE PERVERSENESS OF HUMAN BEHAVIOUR. PROFITS ARE OK, EVEN IF I HURT PEOPLE!!!**

There is a little devil sitting on my left shoulder saying "Go on Bob, sell solvent inks everyone else is" but the bigger devil sitting on my right shoulder is saying "NO WAY!"

To make matters worse, is the current trend of taking low cost printers that were designed to print Environmentally friendly inks, and equipping them with Solvent inks. **These printers have no way of safely venting the solvent. They will simply poison everyone in the immediate vicinity.**

(There are very good solvent printers on the market, that have special traps to channel the solvents to a vent pipe, that is then attached to a solvent recovery system and that would prevent the escape of these solvents into the Environment. The problem is they cost a lot more than the Environmentally friendly printers)

Why is this argument occurring anyway? Well solvent inks have definite advantages in so far as rub resistance is concerned, but for the rest, environmentally friendly inks are, if not equal, better than solvent inks.

Lets look at the following table.

So what it comes down to is that solvent inks are poisonous, unless properly vented and recovered, and yes they have better rub resistance. Overall however, solvent inks' cost to society in the short to long term are incalculable! I therefore in good

conscience cannot supply solvent inks for our printers that are designed to run Environmentally friendly inks.

	SOLVENT	ECO FRIENDLY
Poisonous to the Environment	YES	NO
Poisonous to Operator & anyone in the general vicinity.	YES	NO
Can print on any vinyl	YES	YES
Rub Resistance	15%removal	50% removal
Scratch Resistance	100%removal	100% removal
Very High Quality	NO	YES
Attacks Adhesive Layer	YES	NO
Outdoor Durability	3 years	3 Years
Life of Printer	Short	Long
Ghost print of liner print	YES	NO
Machine Maintenance Cost	High	Low

What we will be doing instead, is to continue our research into the development of a low cost coating that will increase the rub resistance of environmentally friendly prints. This product locally developed is in its final beta stage and will be available during the month of May. We will also be releasing a low cost draw through applicator to apply this coating.

Have a beautiful clean day.

Bob Glenister

References:

- <http://www.ncchem.com/niosh.htm>
- <http://www.epa.gov/iaq/voc.html>
- <http://www.ilpi.com/msds/ref/voc.html>
- http://www.eeb.org/press/pr_ozone_31_03_04.htm
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