

CS1TQ2 COTS 1 Assignment

January 2004

Background

Flowerhills is a successful and expanding Nursery and Garden Centre business. It has been in the Hill family since the 1950's but the last decade has seen a major expansion of housing in the area and a consequent increase in demand for garden products. The grounds owned by the family are quite extensive and a small parcel of this land was recently sold off for the construction of some executive homes. The proceeds from this sale will be used to fund a major expansion of the business.

You have been engaged as a consultant to advise the Hill family on the IT aspects of the business expansion, in particular the use that could be made of COTS software products.

In preparation for this a survey of the current business and its use of IT has been carried out. A summary of this is included below. In addition, various members of the Hill family and their staff have held a "blue skies" brain-storming session to generate ideas for the ways in which the business could be expanded. Brief details of these ideas are listed below.

Requirements

Your task is to produce a written report and a summary presentation for the Hill family. These should cover:

- An assessment of where IT and COTS software could assist or improve the operation of the current business
- An assessment of how IT and COTS software could contribute (or not) to the ideas generated in the brain-storming session
- Any ideas of your own for using IT to improve or expand the business
- A very rough guide to the costs and potential benefits of each of your suggestions should also be provided, if possible

The report and presentation should be aimed at non-technical staff. There is no set length for the report but typical examples run to four or five sides of A4, with additional technical or supporting material in appendices if required. The presentation should last not more than five minutes and should summarise the contents of the report.

Hand-in Details

You are required to hand-in the following items to the school office, not later than 4pm on the 11th of March 2004:

- One paper copy of your report, including any appendices etc.

- One paper copy of your presentation as handouts, two per page. (If the presentation uses colour it is not necessary to provide colour printing, grayscale is sufficient).
- A signed “Statement of Original Authorship”

You may also hand-in, either as a floppy disk, CD or by e-mail attachment to K.R.Wilcox@reading.ac.uk electronic versions of your report and presentation. This is not compulsory.

All materials will be returned along with the marker’s comments. They will be available for collection from the school office towards the end of the summer term.

For the purposes of late submission penalties this assignment counts as a **major** piece of work. If you require an extension to the submission deadline you **must** in the first instance contact your tutor. The course lecturer is **not** able to grant extensions.

Questions

If you have any questions or problems then you may do any of the following:

- Post a question on the “Assignment” forum on Blackboard. You may post anonymously if you wish.
- Send an e-mail to K.R.Wilcox@reading.ac.uk. If the question and answer are likely to be of general interest then I will post them on Blackboard.
- Send a text message (in English **not** txt!) to 07958 717131. As before, general interest items will be posted on Blackboard.

Flowerhills: Survey of Current Business and Ideas For Future Expansion

The Current Business

The current business can be split into three main areas, the nurseries, the retail garden centre and “back office” administration functions. We will cover each separately.

The Nursery Business

Approximately half of the remaining land area is given over to glasshouses, “poly” tunnels and associated equipment for raising garden plants from seed. Many common garden plants, shrubs and trees are raised and the Nursery also has a national reputation as a breeding centre for delphiniums, a passion of one of the original founders. The nursery products are sold on a wholesale basis to other retailers as well as being used as a stock in the retail garden centre.

Planning of which plants are to be raised, and where they are to be placed is currently done manually. A map of the various greenhouses and tunnels has been drawn on a whiteboard and names and dates of plants are listed inside each greenhouse. As plants get bigger and hardier they need to be moved to new locations, or even out of doors. The whiteboard should then be updated, although this does not always happen. Every month or so a junior staff member is sent out to carry out a stock-taking and ensure that the whiteboard shows correct locations.

Records of yields of each type of plant are kept in paper files, organised by the name of the plant. Some plants have quite long “lead times” before they can be sold, particularly trees which may require five years or more to reach a saleable size. Other plants, for example shrubs and perennials, can be sold at various points in their lifecycle, generally for more money the larger and older they are. Other plants, obviously including annuals, *must* be sold in the season that they are grown. Finally, some plants, such as strawberries, may be “forced” in heated greenhouses to make them available earlier in the season than normal, although this can be very expensive. The decisions as to which plants to grow, when to sell them and whether to force them are complicated, depending on gardening fashion, weather and available space. These decisions are currently made by the Nursery Manager based on his experience. Even so, typically 20% of nursery stock is never sold and is recycled as compost and a further 20% is sold at what is thought to be less than the cost of growing, although details of exact costs for a particular stock item are difficult to obtain.

The Nursery Manager oversees a staff of 3 full time nurserymen and up to 10 casual staff at busy times. Staff rostering and time recording, including overtime are all currently managed on paper. There is also a truck driver who carries out deliveries of wholesale products across the country on-demand, even if this requires less than a full load. Recently, due to heavy demand some deliveries have had to be subcontracted to a local haulier at considerable expense.

Retail Garden Centre

This is a typical retail operation selling stock from the in-house nursery, other nurseries and a number of wholesalers of other garden products. In addition, some local suppliers of craft products provide goods for sale. At present all stock has the price shown on a sticky label and at the checkouts the prices are totalled but the type of goods is not recorded.

Stock and inventory levels are currently recorded manually and once a month the shelves are checked and new orders placed if required. It is likely that new Point-of-sale equipment will be able to scan bar-codes and provide an electronic listing of goods that have been sold.

There are 8 retail staff responsible for operating the checkouts and restocking shelves, working varying hours. Some casual staff are taken on at Christmas. All hours worked, including overtime are recorded manually and signed off by the retail manageress.

Within the garden centre there is a dedicated section selling cut and dried flowers and flower arranging accessories. A new service has just been introduced to provide flower arrangements and bouquets to order. Two additional staff members have been taken on to run this section. At the moment, orders must be placed in the garden centre, chosen from a catalogue of photographs.

Administration

There are two administration staff. Their duties include:

- Answering telephones and operating a small switch board
- Opening and answering mail
- Issuing invoices and receiving payments for wholesale nursery sales
- Raising orders for the retail operation, receiving and paying invoices
- Paying salaries, based on hours worked

Almost all of these duties are carried out manually, although they each have a stand-alone PC for writing letters and invoices, and a printer shared via a printer switch.

Almost all communication amongst garden centre staff is informal, although important information is sometimes printed out and pinned to the notice board in the kitchen area.

The garden centre advertises in local newspapers and by leaflet. The advertisements and leaflets are designed and printed by a local Graphics Design agency. The same agency also set up a small web site using Yahoo small business web hosting but the site is static, just giving directions to the centre, contact details and a few publicity photographs.

Future Opportunities

The following ideas have been generated at a brain-storming session attended by members of the Hills family, the senior Nursery Man, the retail Manageress and both

administration staff. The ideas have not been validated as viable business opportunities at this stage and are not presented in any particular order.

- Web based ordering for the flower arrangements and bouquets
- Telephone / web ordering of goods and local delivery
- Landscape and garden design and build
- Better stock control and management reporting
- Better web site, with e-mail
- Mobile e-mail for all staff
- Demolish some of the greenhouses and expand the retail space
- Expand the greenhouses and begin propagating and growing rare orchids for sale

—ends—

Karl R. Wilcox December 2003