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Keeping one step ahead in the computer game

Guy de Jonquieres on one of the first companies to exploit viewdata's potential

"FIVE YEARS ago, this company was little more than a bench and a couple of desks over there," says Michael Aldrich, leaning back in his chair and gesturing out of his office window towards an adjacent building. Today, it employs 600 people and has an annual turnover of £14.5m.

Aldrich is managing director of Redifon Computers, a subsidiary of the Rediffusion group, which also has interests in broadcasting, television manufacture and rental, and in-flight simulation equipment. Somewhat grandly, Redifon styles itself as "the second largest British-owned computer manufacturer" after ICL (1980 turnover £715.8m).

That is a claim which might be contested by some of its competitors such as Ferranti and the General Electric Company (GEC). Moreover, Redifon's rapid growth has been based until recently on its specialisation in a fairly narrow section of the computer market, mainly the design and manufacture of so-called "key-to-disc" systems used to enter instructions and other information into computers.

The company is generally estimated to be the largest independent supplier of these devices in the UK, with between 600 and 800 systems installed. The business flourished as computer users turned to the systems in place of older and slower punched card machines, whose basic design had been outdated by electronic technology.

But being mainly a replacement market, its growth potential was limited. When Aldrich was hired away from Burroughs, the big U.S.-owned computer manufacturer, in early 1977, to become managing director of Redifon, it was clear that sales of the company's traditional product were already close to peaking out and that it must strike out into new markets.

Redifon's development until then had owed a good deal to a sequence of fortunate accidents. The company got its start in the late 1960s after Rediffusion's flight simulation equipment



Michael J. Aldrich — Managing Director.

subsidiary had developed its first digital computer and was struck by the idea that it could be used in other applications.

"Someone said: Why not go into commercial data-processing? But the Board wasn't too keen on the idea," Aldrich recalls. "It was about that time that a number of big companies like General Electric in the U.S. were getting out of the general purpose computer business because they had been unable to make a go of it."

What helped change the Board's mind was a Government tender for terminals for the planned Driver and Vehicle Licensing Centre in Swansea. Redifon won an order to supply a huge 400-terminal system. Aldrich insists that, unlike other parts of the much-criticised Swansea complex, Redifon's equipment functioned smoothly from the outset.

It soon became clear that there was a much bigger market for smaller data-entry machines. To develop the right product, Redifon teamed up with a small

American company, Entrex. The result was "Seecheck," developed in the early 1970s, whose sales have provided the basis for much of the company's subsequent growth.

Soon after Aldrich took the reins at Redifon, he set about defining a fresh business strategy that would guide its development until well into the 1980s. "In March 1977 we sat down and painted a picture of what we wanted the company to be. It was real blue-sky stuff, and we weren't at all sure at the time that what we wanted to do was right."

What emerged from the brain-storming was a decision to enter the office information and communications systems business, then starting to be recognised as a major growth market of the future. It was a bold move, for several reasons.

Barrier

Redifon had only limited experience of the office automation business and lacked the skilled technical

staff needed to develop a new product range. It was also entering a highly competitive field in which it would have to battle for survival against a regiment of giants, led by International Business Machines (IBM).

But Aldrich reasoned that the company could build on the expertise and the customer base which it had acquired as a supplier of specialised computer terminals. "We thought, what if we added other functions to our machines, like word processing, data processing and communications, and designed them so that they could be used by ordinary people without special training?"

Looking around at the types of terminals then available from other manufacturers, Aldrich concluded that they were all too complicated to be used by unskilled staff. "They really presented more of a barrier to use than an encouragement." So, after recruiting a number of young computer engineers, the company set about designing an easy-to-use system.

In 1978, it made a sale which suggested that it was moving in the right direction — a £3m order from British Rail for a pilot system to automate payrolls and accounting. One of its features was an electronic scanner able to "read" printed figures and transfer them directly to a computer memory.

But meanwhile, technology took an unexpected turn in the shape of viewdata, pioneered by the Post Office and the basis of its Prestel public information service. "At first we were puzzled by it," says Aldrich, because he doubted whether Prestel would appeal to a big market. "It took some time for the penny to drop. Then we realised that viewdata need have nothing to do with Prestel. It was a communications medium in its own right."

Though the computer industry is still split over its commercial application, viewdata offers a number of potential advantages. One is that it is exceptionally easy to

use. By following step-by-step instructions spelt out in plain English on a display screen, even a child can feed in and retrieve information stored in a central computer.

It is versatile and can be used to send messages between terminals as well as to perform computations. It is also relatively inexpensive. A modified television receiver equipped with a keyboard can serve as a terminal and can transmit across ordinary telephone lines instead of requiring costly leased circuits used for conventional computer systems.

In 1979, Redifon launched a crash programme to develop its own viewdata-based information system. A few months later it was ready to test a prototype. Still not certain about public reaction, it chose a site as far away as possible — an exhibition in New Orleans.

The Americans were surprised, but impressed, and Redifon decided to take the plunge into full production. In the past year it has launched three business information systems costing from £30,000 to £100,000. As well as being among the first on the market to embody viewdata, they offer a number of other novel features. One is a facility for entering data into the computer by ticking spaces on a printed form clamped to a pressure-sensitive pad.

The initial response has been encouraging. Aldrich says that orders so far total more than £3m. A number are for pilot schemes which, if they prove satisfactory, could generate substantial further sales.

The Thomson travel organisation has ordered a system to link agencies in ten towns to a large IBM computer.

For various reasons, notably sensitivity about employees and competitors, many of Redifon's customers wish to remain anonymous. One, a British bank, is experimenting with viewdata in staff training. Instead of housing staff in training colleges at considerable expense, it plans to install viewdata terminals in branches so that

employees can take programmed learning courses while on the job.

A retailing firm is examining the possibility of setting up high street viewdata centres, from which shoppers can send orders to a central warehouse. And a large electronics company, which has been struggling unsuccessfully to develop its own viewdata business system, has decided to order one from Redifon for its headquarters.

Redifon owes a good part of its success to being one of the first companies to perceive and exploit the commercial applications of viewdata. But competition is now starting to heat up, with more than half-a-dozen major companies including GEC, ICL and Honeywell offering rival systems in Britain.

Aldrich is confident that Redifon can continue to innovate fast enough to hold its own. Many of its computer engineers are still in their twenties and, he says, "Almost every week they generate two or three new ideas that are really marketable."

The company clearly enjoys the confidence and support of the Rediffusion group. Though Aldrich says that Redifon, whose financial results are not published separately, has always operated at a profit, it has received a good deal of backing from its parent. This includes investments of almost £8m over the past decade.

Rediffusion also recently acquired CMC Europe, a distributor of electronics equipment with a 1980 turnover of about £24m, which will significantly expand Redifon's marketing and service network on the Continent. The group is also believed to be considering further, similar acquisitions in the U.S.

Aldrich expects Redifon's activities to complement increasingly those of its parent in the years ahead. Rediffusion is involved in designing and developing terminals for the business viewdata systems, and its substantial interests in video, including cable television, as well as set manufacture and rentals, seem to offer a good deal of scope for further collaboration. "But it is still too early to say exactly where the lines will converge," says Aldrich.

He is wary about giving any forecasts for Redifon's own growth in the next few years. But with characteristic ebullience he adds: "Right now, we are the same size that Racal was in 1971. Just look what happened to them."