



**Teaching Case Study:**

# **DCS Designs Ltd**



## Case Study.

### **DCS Designs Ltd - health care products that promote Dignity, Comfort and Safety (DCS) for patients and for hospital staff.**

#### Origins

DCS Designs Ltd – [www.dcsdesigns.co.uk](http://www.dcsdesigns.co.uk) – was the brainchild of Fatima BA-Alawi; a graduate in Business and Administration at The University of Portsmouth. Fatima got the idea of developing the DCS Patient Gown during her University years where she worked in a Hospital as Healthcare Care Assistant having first hand experience of how undignifying, inflexible and poorly designed the conventional patient gowns were. She won an Enterprise Award of £4,000 from the University's Enterprise Challenge run by the Portsmouth Centre for Enterprise, winning all stages. Fatima had always had an interest in setting up her own business and thoroughly investigated the viability of setting up a graduate business whilst working on her third year dissertation entitled 'Graduate Entrepreneurship – does it work?'. She won a further £5,000 from the University as an equity investment, which provided her with enough start up funds to register her company, gain IP protection and produce prototype samples of the garment.

#### Products and markets

Established in August 2005, DCS Designs Ltd delivers health care products that promote Dignity, Comfort and Safety (DCS) for patients and for hospital staff.

One of the first product ranges was the DCS Patient gown (also known as the DCS Power Gown); a new and innovative gown that offers patients all the comfort they need, reducing risk of needle injury and maintaining their privacy and modesty during their hospital stay. The DCS Power Gown is a value-added high quality product that has been designed to overcome the many problems of conventional patient gowns. The gown was developed using patient and staff feedback following a number of successful clinical trials with modernity and practicality in mind. It provides easy access to the patient's body for medical examinations and carrying out medical procedures with minimal patient contact which facilitates infection control whilst maintaining patient dignity, comfort and safety. The gown's design is also reversible allowing a patient to wear it according to the type of operation they are about to undergo. The flexibility of the product is also beneficial for hospital staff as it saves time, hence promoting a stress-free and efficient environment. To date, the DCS Designs Ltd has developed 6 different gown ranges; the DCS patient gown, DCS Surgical gown, DCS Faith gown, DCS Scrub Suit, DCS Maternity gown and DCS Children's gown.

DCS identified three possible routes to market. The NHS has approximately 150 Acute Trusts, and each of these is an umbrella to around 10 - 13 Hospitals, making this channel to market of nearly 2000 hospitals the biggest route. On average, each Hospital will hold a patient gown stock of between 4000-8000 units and replenish their stock annually by about 2000-3000 due to loss and/or damage.

It has been on the agenda of the Department of Health that the issue of patient dignity needs to be addressed. This issue has long been over-looked and has been a hot topic for debate amongst patient groups. A recent report by the Healthcare Commission on "state of healthcare" found that that one third of complaints about the NHS relate to dignity, respect and nutrition in hospitals, with the conventional patient gowns being referred to as "humiliating open-backed gowns" as described in the full article below:

<http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2007/12/05/nhs105.xml>

The DCS patient gown provides a solution to fill a gap for the general health care market. There is also a more lucrative opportunity in the private health care market which has more disposable income. There is also a viable opportunity in the retail industry, where patients can have a choice of design, colour and size ranges of gowns where they can get their own "Patient Packs". This approach ties in with the government's recent "Patient Choice" approach.

#### Initial years

Research was undertaken prior to starting the business as part of Fatima's 3rd year dissertation and during the next 1-2 years of starting her company, she went through a period of extensive trialling of products. This research was all carried out by Fatima where the results were very positive and highly indicative of the great need of such a gown.

DCS has recently identified a growing market need for disposable items and is currently working closely with a leading disposable fabric manufacturer, DuPont, who are interested in licensing their designs for manufacturing and distribution on an international level. Research also found that the NHS was very tight with their procurement budget and purchasing decisions were mostly influenced by low cost.

#### Initial Strategy and Business Plan

There was no immediate business plan. A premature strategy document was drawn up but this evolved in the early formative years. Minimum resources were utilised and this was largely Fatima in her own time. The University provided premises and Fatima had her own materials.

#### 2005 onwards (2005 first year of business)

From August 2005, the DCS patient gown underwent hospital trials where feedback review was consistently positive and favorable compared to conventional patient gowns. Samples of the gown were sent to more than 30 regional hospitals where feedback comments were very encouraging. These brought over a dozen sales enquiries from NHS Hospitals, Private and International hospitals, however, direct marketing only started in 2008.

DCS Designs worked with University College London Hospitals (UCLH) to undertake a government commissioned project examining the effectiveness of different agents on fabrics for the purpose of infection control and evaluating the value-added designs of the DCS Patient Gown.

In association with Carrington Career & Work-Wear Ltd, who have developed an anti-microbial fabric coating agent "PERMAGARD", DCS Permagard Gowns are being clinically trialled at UCLH where the trial is being sponsored by Carrington. The DCS Gown was selected for this important trial because of their emphasis on increasing safety through innovation.

<http://news.bbc.co.uk/1/hi/england/hampshire/6341969.stm>.

The first phase results of the UCLH trial are very positive where both staff and patients favorably commented on the gown design.

A recent publication written by Dr S. Dancer highlights the fact that patient gowns are one of the biggest carriers of MRSA in hospitals as highlighted in the article below:

<http://news.bbc.co.uk/1/hi/health/7069897.stm>

The DCS story of the trial at UCLH received massive PR coverage and was featured in several national and international papers and journals including the "Mail on Sunday", "The Evening Standard", "Financial Times", "Department of Health", "The Telegraph" and "Materials

KTN". DCS also had repeated exposure in the local radio station and local newspapers such as "The News". The story has also been featured on the BBC and Meridian ITV news.

#### Other developments

1. The PR exposure resulted in the formation of an exclusive agreement with a medical company in Kuwait, Al-Essa Medical Products, who were assigned as the sole distributors of DCS products in the GCC countries of the Middle East.
2. DCS Permagard Gowns were also trialled by Sunlight Service Group one of the leading healthcare service providers in the market. Sunlight's trial report showed positive results and conclusive feedback analyses. DCS are currently in negotiation with Sunlight, who are interested in conducting a clinical trial to test the designs and fabric performance of the Permagard gown in a real hospital environment.
3. DCS signed an agreement with NHS Innovations to develop a brand new medical product, which was invented by Dr Adil Ahmed who is currently placed at Southampton General Hospital NHS Trust. The IP of the product is owned by the Trust, however, DCS have been granted an exclusive license to develop the product and commercialise it.
4. DCS won a SPARK award for £5000 to develop a proof of concept research project, which evaluates Anti-peptides that are found on the backs of Amazonian frogs that are believed to have Anti-microbial properties. DCS has won this award in association with the University of Central Lancashire, who is the Academic Partner. Research work will start in July/August 2008.
5. For distribution, DCS signed an exclusive Joint Venture (JV) Agreement with a medical company based in Malaysia, namely TFSB, to distribute DCS products in a number of Global regions through the Joint Venture Company, DCS Global Ltd.
6. DCS is participating in a European Commission (EC) research project in collaboration with several other UK and EU Companies to carry out an investigation into the "Activation of Textile Surfaces by the Use of a Nanocoating in Order to Improve the Durability and Adhesion of Bio-functional Molecules". This is a collaborative project, with several other participating Companies from all over Europe, is anticipated to receive a huge sum of EC grant and is projected to last for about 3 years.

#### Resources

Fatima was the sole resource in the early days and held responsibility for driving sales and managing the business. She bought in two high profile non - exec shareholders. The Management team structure now comprises Fatima (majority), a non Exec FD (also an adviser) and a Barrister (also a mentor).

Initially DCS had no other employees. Now there are 6 (2 in Malaysia, 1 in Lithuania and 3 in UK), all of whom have been fully trained in the products.

#### Progressing to the next stage

During the UCLH trial in 2007 the emphasis moved to larger scale PR activity. Organic growth continued but the company was now thinking of the "big picture". Strategy moved from fabric based products as a supplier to disposable fabrics which were high volume, low margin. DCS started licensing to different markets including international markets via the DuPont distributor network. DCS also began a program of product development (e.g. bed pans) directed at other markets such as the NHS Innovation project. A prototype was designed for this new market and DCS won exclusivity to commercialise it and signed a 1 year contract. DCS also set up a Nursing Mother Grow Baby business (NMGB Ltd) – a spin off company for the Maternity market.

Finally DCS set up DCS Global, a Joint Venture in Malaysia. This became the catalyst for the two initiatives above.

### 2008

The DCS business model moved from manufacturer to product licensor. Active trading started. For manufacturing DCS are looking for local manufacturing partners (agents) in Malaysia who have the necessary market intelligence. They may close down the Lithuania unit but the contactor there produces very high quality textiles.

The first order was won from sales of the DCS Grown to hospitals and was for approx £5000 and the target sales projection is £500,000 by Year 5. This will be achieved in the UK by concentrating on the South East but with some contracts from Manchester.

DCS Global is starting to reap benefits. They are setting up a manufacturer in India with a partner under a Joint Venture agreement to cover South and North America and most of the SE Asia region.

### Future development

In the medium to long term DCS aims to continue to explore merger opportunities with critical markets. The company will progress marketing and promotion activity with Sunlight and DuPont but look to maintain costs at a low level and increase its client base. A key part of business strategy will be to continue to drive licensing agreements so that partners handle all manufacturing and distribution.

DCS are bringing a new resource into the team who will bring ideas, marketing ability and experience of the public tendering process.

### Long term vision

Fatima has a vision to provide industry gowns linked to advertising, i.e. a DCS gown provided for the NHS provided with sponsors advertising on it, i.e. a DCS logo gown.

## NOTES FOR TUTORS

### Questions to consider

1. If this was your business would you have grown it to its current state differently?
  - Factors to consider will include the degree of passion and creativity behind development of new in products, long term vision, market research into business model, external investment, agreement on resource capability and levels and use of non-exec specialists to help drive the business.
2. What factors are likely to have a bearing on the success of DCS's international marketing strategy over the next two years?
  - Impact of European Research Project and subsequent level of EC grant.
  - Success of JV as a vehicle for maximising potential for manufacturing and distribution channels
  - Under DCS umbrella the global evolution of the relationship with DuPont for licensing new product ranges coupled with the impact of costs of overseas labour.
  - NHS take up of core DCS products in the UK which would give DCS a sound cash platform for further international investment.
3. What are the risks arising from this business model for cash flow management?
  - High dependency upon Fatima as the main executive Director with responsibility for strategy and marketing.
  - Possible lack of flexibility in the DCS pricing model to allow for fluctuations in exchange rates.
4. What is the main learning point from this case study for anyone wanting to build a business targeted at the medical sector including NHS hospitals?
  - Importance of knowing the NHS market and conducting initial feasibility study and / or pilot research to assess potential market sectors and geographical areas within NHS framework in which to pilot initial products.
  - Clear year 1 and 2 business forecasts and cash flow control in the early years to allow for tight NHS procurement budget and slow purchasing decision making.
  - Thought through products which demonstrate added value and are aimed at delivering volume sales given high NHS emphasis on low cost.
5. What kind of a management team will Fatima need to forge together to support the business in the next few years?

- Greater hands on management expertise to support Fatima in driving forward sales and marketing activity.
- Full or part time accountant to manage cash flow and provide quality financial monthly and quarterly reporting and advice to the Board.
- Additional commercial acumen to develop the business model, support new product development and implementation and negotiate profitable business deals with new JV Partners.