

FOOT SCIENCE INTERNATIONAL

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Foot Science International

Introduction

Foot Science International (FSI) is a small insole manufacturer and marketer, which was established in Christchurch in the early 1980s. Its core product, the Formthotic insole is used to correct posture, control excess pronation¹, provide good arch support, minimise foot movement in the shoe, and improve footwear effectiveness. Various models exist in FSI's range that allow the individual to more closely meet their individual needs, though FSI is predominantly a single-product company.

FSI exports its product, the Formthotic insole, via a network of more than 30 distributors, to 22 countries world wide including Western Europe (their main focus), Scandinavia, Japan and Australia, but 80% of sales come from four or five markets. FSI has a distribution network in virtually every country in Europe, and European sales are estimated to double within the next 24 months.²

Initially a manufacturer, FSI later realised the need to market and brand their product, and have done so to the extent that they now consider themselves predominantly a marketing company. The difference is one of emphasis and attitude, as described by David Boyd Managing Director of Foot Science.

"Foot Science is now basically a marketing company that controls its own manufacture...12 to 15 years ago Foot Science was, and believed it was a manufacturing company that had to go and sell its product." – David Boyd³

The company made early use of the Internet to reach the users of its product wherever they might be in the world. The Foot Science Website can be viewed at <u>http://www.formthotics.co.nz/</u>.

¹ Pronation; A tendency for the arch of the foot to weaken putting stress on the inner side of the ankle and knee joints.

² Middlebrook, L. (2000) "Custom-fit for Fleet of Foot." *The New Zealand Herald*, Nov 14: pC4.

³ Interview (24 January 2001) all excerpts taken from this interview unless otherwise specified.

Product

"Formthotics are as user friendly and safe as your own footprints."⁴

FSI sells up to 150,000 pairs of Formthotics insoles annually, priced between \$50 and \$80 a pair.

The Formthotics thermo-formable insole is a revolutionary product in the sense that it can be custom moulded to an individual's foot instantaneously, and is suitable for use in almost all types of footwear. More specialised Formthotics are available for various sports, both indoor and outdoor, and a specialist range exists for structural support and the treatment of sports injuries.

Developed to overcome the changing manner in which our feet make contact with the ground, the Formthotics insole has been designed to conform to the natural shape of the foot, preventing the flattening and twisting of the foot that occurs when subjected to impact with hard surfaces such as concrete floors and asphalt roads. Formthotics put the natural support under the foot again, allowing the proper distribution of body weight whilst minimising impact with the ground. Extensive testing has shown that the Formthotics insole reduces factors related to injury three times more effectively than innersoles supplied in most sports shoes.⁵

Formthotics are constructed from a closed-cell Polyethylene foam, which can be moulded and remoulded as many times as necessary at a relatively low temperature (80°C). The closed cell structure means the product is completely waterproof, enabling the insoles to be washed, and FSI have incorporated the anti-fungal, anti-bacterial agent "Ultrafresh", to maintain hygiene.

The actual insole is manufactured through a milling and grinding process, as opposed to the more common compression method; this method provides a more consistent cell structure throughout the product.

Prior to the development of the Formthotics insole, podiatrists' patients had to have their casts sent to America to be created because there was no orthotic lab in New Zealand at that time. This could

⁴ <u>http://www.formthotics.co.nz/html/q_a.html//</u> (13/02/01) Formthotics Questions and Answers.

take up to six weeks, in which time a significant number of patients would get better without any treatment. The Formthotics product occupies a middle ground between orthotics that are fully customised to a person's foot by a podiatrist and which require individual construction at high cost, and mass-produced insoles that offer no adjustment to the individual foot. Although more expensive to produce than a standard insole, the ability of Formthotics to be moulded to the individual foot shape when heated to 80° provides a level of orthotic support adequate for many needs at a fraction of the cost of the fully customised version. Formthotics is the only product of its type to be approved by the New Zealand Society of Podiatrists.

The Company

Foot Science International is a privately owned company, with two major shareholders Dr. Charlie Baycroft, Technical Director, and David Boyd, Managing Director, who are the two pioneers of the Formthotics product. FSI employs only fourteen employees yet is regarded as one of the top three suppliers of orthopaedic insoles globally.⁶ As David Boyd explains

"The company is, and hopefully will always be, a very small company...that, I think, is part of its success."

FSI's fourteen staff produces and delivers around 150,000 insoles per year, each selling for up to \$80. The Formthotics brand is available in over twenty countries world wide, and 80% of all products are sold outside Australasia.⁷ This success has been influenced by the willingness of both Boyd and Baycroft to invest in modern and innovative technology and processing methods.

Computer-aided machine milling has dramatically cut the design-to-manufacture time, replacing FSI's 20-year system that involved stamp-moulding the insoles. Computer software enables FSI to share ideas by e-mail, thus the whole design to manufacture time can take as little as 8 hours, in the past this process took up to 6 months.⁸ Samples derived from customers' ideas can potentially be returned to Europe within three days.⁹

http://www.formthotics.co.nz/html/q_a.html// (13/02/01) Formthotics Questions and Answers.

 ⁶ Anonymous, (1999) "Foot Science Outpaces the Competition." *Export News*, Dec-p4.
⁷ Anonymous, (1999) "Feet First into Technology." *The Press*, May 18: Edition 2, p24.
⁸ Anonymous, (1999) "Feet First into Technology." *The Press*, May 18: Edition 2, p24.

⁹ Anonymous, (1999) "Feet First into Technology." *The Press*, May 18: Edition 2, p24.

Marketing

FSI initially viewed everyone as a potential customer for the Formthotic, a near fatal policy because it failed to differentiate the product from standard inner soles and failed to focus on segments that could most benefit from the Formthotics' innovative capabilities. Besides FSI simply lacked the capacity to meet the world's needs. In realising that the specialty product that it produced needed to be sold to those who were willing to understand the product, FSI set about to transform its business from primarily manufacturing the formthotic product, to marketing it. Although FSI still manufactures the formthotic from its factory in Christchurch, almost 80% of revenue is now reinvested in marketing product enhancements that explain the value and use of the Formthotic sole.

As with many New Zealand companies, FSI's acute focus on a niche market has meant that an export focus has needed to be adopted to allow for future business growth whilst maintaining their tight focus. Thus its current focus is "not just on niches, but slivers of niches"¹⁰.

Distributor agreements are country specific, but are not usually written down because according to David Boyd, "they breed mistrust and maintaining strong relationships with these individuals and companies is of paramount importance".¹¹ FSI identify particular distributors they wish to target and do extensive research to select these people. An emphasis is placed on finding distributors that they can work with effectively and can interact with on a personal level, which is important for a company the size of FSI.

Through both perseverance and passion, FSI have become one of the world's leading suppliers of specialist insoles. They have complemented their products' abilities with continued investment in expanding the market's knowledge of their products through road shows, workshops and most importantly the Internet, which has allowed FSI to reach customers throughout the world and compete on a level playing field with the big producers.

FSI takes the opportunity to display at ISPO, a major international sports trade show which is held every six months in Munich, Germany. FSI have been displaying there for nearly fifteen years, showing their commitment to a long-term focus for their European customers. Whilst it costs a lot

 ¹⁰ Anonymous, (1998), "Weaving Web Magic" *Marketing Magazine*, Feb-p42.
¹¹ Interestingly, Boyd is a lawyer by training. He took his law degree and professional exams over five years at Otago.

of money to exhibit at this event it has saved them an enormous amount, as a mechanism by which Boyd can maintain personal contact with the European agents.

"My distributors know that in that four days I will meet with everyone of my distributors in Europe. Now if I didn't do that at the trade show I'd suggest that it would take me six weeks of travelling to coordinate all the appointments."

FSI exports up to 80% of its products through overseas distributors, to three broad market types: the professional medical market, retail, and industrial markets. Because the nature of each market segment is quite distinct, it is not uncommon for FSI to operate a dual distribution network in any given country.¹² 'Professional' sales are sales to podiatrists, physiotherapists, orthotists and other doctors. This group contributes about 70% of all sales and is important as an influencing agent in retail too. 'Retail' sales are predominantly focused on the premium end of the sports market, where athletes are prepared to pay up to the \$80 it costs for a pair of insoles. This market can be segmented further into specialty retail, such as skiing, golf, outdoor and running stores. The third segment is referred to as the 'Industrial' sector, and encompasses sales to large single-user industries or groups, such as the Defence force or the mining industry. These large orders have the potential to be their own mini-market for FSI, but the only way to capture them is to be ready when the opportunity arises.

FSI finds it difficult to find distributors that are able to cater for all three of these markets, but have branded their product in a way that enables them to use the same brand name in most markets. An exception is the more traditional European medical market, where the product was re-named because "Doctors didn't want the same product that was in the retail store in their clinic... because their patients don't want it." In cases such as this, differentiating the product was required to protect the Formthotic brand image.

Foot Science look to work with distributors who have complementary products. Most of these distributors are similar to large distributor Mobilis, in that they have a range of other products reaching a specific sector of the sports or medical markets.

¹² Anonymous, (1999) "Passion for Exporting." 1999 New Zealand Export Awards, p10-11.

Competitive Advantage

Technology

"Foot Science has always been an early adopter of communications technology...anything that takes away this perception of us being way at the other end of the world is of optimum value." David Boyd.

FSI has not only developed its own permanent website, but also makes extensive use of temporary websites to advertise the company's presence at up-and-coming trade fairs. The biggest challenge for FSI is to influence customers before the show, because it is very easy to get lost as a small New Zealand producer amongst the giant global producers. So when consumers enter the show they have an idea of where Foot Science physically is and a reason to visit their exhibition. The internet has allowed FSI to access customers more easily and enabled it to compete on a more level playing field with the larger producers, however FSI recognises that the internet is merely one tool in their marketing strategy.

A temporary website linked to the Friedrichshafen Show Home site recently, not only promoted FSI's product, but also promoted the other New Zealand exhibitors products, actively encouraging visitors to apply for a gift voucher redeemable at any of the New Zealand product stalls. This voucher was given in exchange for visitor information so that a database of visitors and consumers could be established.

FSI's homepage is available in over four languages, and was developed by the Christchurch company, Montage. Local distributors translate sites in foreign languages. Foot Science is impressed with its capabilities and functionality, and also with the number of hits it receives. According to David Boyd:

"Over the last five years we've never had, to the best of my knowledge, less than around 800 people [per day] visiting a website that tells people about bloody insoles!"

For FSI the net provides them with the opportunity to shake their "small company" tag. Ecommerce allows them to market themselves just as effectively as any of the large producers. "One of the best things about the net is that even small companies can look big. Part of the problem for New Zealand companies going out into the international marketplace has always been that they have to work so hard not to look small. You can overcome that easily with a well designed website."¹³

The recent product launch of the GolfPro insole has provided an opportunity for FSI to trial direct selling over the Internet.

Knowledge

Today FSI has extensive market and product experience, a strong manufacturing base and an international marketing focus. Through specialisation they have become a market leader with a superior knowledge base in their particular niche. Focus is central to Boyd's strategy for Foot Science:

"We have stayed tightly focused on our little sliver of a niche and by doing that we are the specialists. That certainly gives us a big competitive advantage when we go to see somebody."

FSI have been assisted in this international marketing strategy by being able to use the New Zealand market to trial new products before committing to offshore markets. In particular a number of their computer systems have been trialled in New Zealand, prior to use in overseas markets.

"That remaining percentage that is the New Zealand market is the most important percentage of the whole lot. It has an increasing importance because of what we're able to do with it to help us in the offshore markets."

Remarkably, FSI have attracted no imitations of its innovative technology:

"What is bizarre is that it's now 20 years old and we've been trotting it around the world for 20 years and we're still the only ones doing it. It's a never-ending source of amazement to me."

Whilst their processes are unique, the real advantage lies in their products' capabilities. Formthotics can be moulded to an individual's foot immediately, so there is no wait of up to six weeks, as there

¹³ Anonymous, (1998) "Weaving Web Magic" *Marketing Magazine*, Feb-p42.

used to be. In fact a six-week wait may negate the need for an insole, FSI's Formthotics insole has revolutionised both insole fitting and manufacture.

Constant trial and research has been a feature of the company whose first Formthotics model took four years of continuous design and development. FSI sees its immediate goal as the constant development of new product designs, new raw materials, and new production methods, which has involved the upgrade to CAD/CAM production capabilities.¹⁴ The search for such improvements has helped FSI to develop products that customers will simply prefer to others. In Boyd's view, the company's small size and focus is also an advantage:

"We've got to find them a reason, there's got to be a justifiable reason as to how I can, 1; attract their attention, and 2; perform a useful function. The thing usually is that the bigger the company with the bigger range of products, and at least 80% of what they are carrying is mediocre...So all I've got to do in actual fact is be better than mediocre to stand out, and the way that we present our product has to be better."

Relationships

Personal contact is a key element in building and maintaining the international relationships that are key to FSI's exporting capabilities.¹⁵ Boyd estimates that he does a minimum of three to four trips to Europe each year. This is a huge regime that is only possible because of the support he receives from his wife and family.

FSI build and establish long-term relationships with their distributors (over 20 in Europe), with the average distribution arrangement lasting 5-8 years. Whilst most distributors are large multi-product companies, FSI has developed some very close relationships with their smaller distributors. In particular, FSI's Austrian distributors, the Rieglers, are close personal friends and often play host to David Boyd on his regular trips to Europe.

 ¹⁴ <u>http://www.formthotics.co.nz/html/profile.html</u> (13/02/01) Formthotics- Design and Development.
¹⁵ Anonymous, (1999) "Passion for Exporting." *1999 New Zealand Export Awards*, p10-11.

Long-term relationships are also formed with core staff here in New Zealand, where average service time with the company is seven years. Boyd relates this long-term approach to one of FSI's longest serving staff members:

"My production supervisor, a young guy Scott, who's now 27... he's been with me since he was 14. I've sacked him twice. I've written more letters to Judges than I care to think. I've even physically appeared in court once for him... he was still in school when he came in as a sort of clean up boy and he was a very rough diamond. And it's been an interesting journey, and Scott's now totally in charge of our CNC programme. So if you can get a few like that that are really core to the whole thing, it's just so fantastic!"

Foot Science International have always recognised the importance of creating long-term relationships and alliances with companies, customers and associations. A key New Zealand partner is the NZ Society of Podiatrists Inc. with whom FSI are currently engaged in a number of projects that will be of benefit to both parties. These projects range from research through to promotional activities. In pooling resources, a greater public awareness of foot care can be achieved resulting in a higher demand for foot care products such as those that FSI manufacture. FSI benefits from access to the latest research and in turn sponsors such research¹⁶, which assists in maintaining high levels of current knowledge and predictive capability for future trends.

In Export markets Boyd asserts that FSI doesn't just sell it's products to the distributor, but rather is actively involved in the marketing of the brand right through the supply chain to the ultimate consumer¹⁷.

"I think that Foot Science has always looked at this whole supply chain as our customer, whereas many New Zealand companies have a focus that tends to be on finding a distributor and defining that as the customer. As far as they're concerned their goal is to find a distributor and think that that's all they need."

Culture

FSI is a company determined to remain small because in that way, they are able to maintain personal relationships. Their attitude towards their work is that it must be fun to do, or else it won't

 ¹⁶ Anonymous, (1999) "Passion for Exporting." *1999 New Zealand Export Awards*, p10-11.
¹⁷ Major, R. (1998) "Marketing Via the Internet." *Export News*, May 25: p12.

be worth doing in the long run. With a long-term market focus, Boyd recalls that FSI has at times forfeited good business opportunities in favour of doing more interesting things.

"We enjoy working in a global market, if you're not enjoying it then you're never, ever going to be able to make it work for very long...there are a lot of things that we are not doing because it's not fun... We totally believe in our product and that probably is helped by the fact that we invented and developed the product ourselves. We know it works."

Boyd believes that FSI's business has been made to grow in a way that allows its principals to enjoy the business and the lifestyle they want.

Reputation

How a company is perceived by the market it targets will be vital to its success, and FSI suggests that this is where its U.S competitors failed. *"The other side that has helped us is the reticence or ignorance of the U.S companies in terms of trying to approach the European market."* David Boyd explains that the Americans, already operating in a huge market, failed to recognise the significant cultural differences of the European market, and consequently failed to produce the right products.

The European market looks long-term.

"I would suggest that most New Zealand export companies make the same mistakes as the Americans, because I think New Zealanders think short term as well. They say, oh that didn't work, and they go home."

FSI are committed to promoting their long-term market focus and honest business approach by keeping all their distributors informed and committed.

"We are endurance athletes, we're not sprinters. We're here for the long haul, we're enormously patient in actual fact."

Brand

The Formthotics brand is the cost preventing competitors from taking on Foot Science. Their protection comes from the brand, not their patents. *"What the customers are buying is not the product, they're buying the brand."*

Initially patents were sought, but in Boyd's view those provided FSI very little protection.

"We were naïve enough to think that patents would obviously be the way to protect this and that would give us some ironclad protection around the world."

Instead FSI set about developing a trademark, and building a reputation around this.

Part of Foot Science's marketing for Formthotics in the medical market involves educating the practitioners through a number of seminars and one-day workshops. These workshops, called Footzones, were developed in conjunction with Dr. Marc Lindy, a podiatrist who is well known both in New Zealand and overseas. They build the profile of the Formthotic product by presenting a responsible image to the marketplace. As a consequence of these seminars, Foot Science is now often seen as the source of up to date information.

Chronology – Business history

"He was suddenly aware that while his bare feet were able to sink into the soft sand and form a supporting imprint (his footprint), most modern surfaces are hard and flat."¹⁸

Whilst the idea wasn't revolutionary, the Formthotics product was.

David Boyd, Managing Director of FSI, was introduced to orthoses in 1975 by a podiatrist in California as part of a sponsorship deal he had as a professional skier. He had never used insoles before and whilst he didn't need any special correcting insole, felt that the ones he was provided with were fantastic. Having spent eight years on the professional skiing circuit, David was asked back to New Zealand to help set up and run the Disabled Skiing Programme in 1978, where a number of the participants had physical problems fitting into ski boots. During nights, Boyd worked at the back of his flat hand-making insoles for the participants in the programme, whilst during the day he worked at a ski store. In 1980 David was responsible for picking and sending the first New Zealand Disabled ski team to the Disabled Olympics, and assisted in the 1984 Disabled Olympics campaign for Austria in 1984. During this period David was spending his Southern Hemisphere summers in the Northern Hemisphere where he came to know the vagaries of the international ski industry, and, more particularly, European retailers.

¹⁸ <u>http://www.formthotics.co.nz/html/profile.html</u> (13/02/01) Formthotics.

Charlie and David met when Charlie entered the store one day, looking for the person who was making custom footwear for ski boots; serendipitously it was David he approached. At that stage both had coincidentally been playing around with thermo-plastic foam, which they had both found to be a good material to work with. Charlie had developed the original Formthotics design concept and David became the first customer.

The company has officially been in existence since 1980, about a year after the Formthotic product was developed. But it wasn't until 1984 that the business really began to operate, David's last full-time winter. In those years access was granted to a small running shoe factory at nights and on weekends, and through trial and error the product was developed. Bernie Burns owned the original sports shoe factory, and is now a minority shareholder, reflecting his input into the company's development. Some of the first insoles fitted by FSI were for the New Zealand ski team, which were fitted in an old farmhouse up in the Rakaia Valley, where they used the kitchen oven to heat up the foam.

Up until 1984 David Boyd had still been spending his summers in the Northern Hemisphere, first North America then Europe, where he had a number of contacts involved in the manufacturing, design and distribution of ski equipment. This coincided with the development of more sophisticated marketing programmes for skiing and skiing equipment, and the knowledge that David was able to gather by providing event-type projects and pre-season marketing for these contacts enabled him to further develop contacts throughout Europe, culminating in the first export shipment of Formthotics in 1982.

"I made a suitcase full of Formthotics...so the first exports of Formthotics was one green suitcase which I hand-carried to the UK and picked six retailers that I knew in strategic places in the market and talked them into trying the product...we modified the product a little according to what was selling, then we'd take that back to New Zealand then send another lot over the next year."

Arthur Lydiard, the doyen of distance running in New Zealand and coach of some of the country's great middle-distance Olympic champions, actually spoke out against many orthotic insoles during the early 80s, particularly that they were being sold as a "magic bullet" and were often poorly prescribed. At a running meet in Nelson, Charlie went up to Arthur Lydiard and said: "what do you

think of this then?" Arthur simply said: "what took you so long? What took you so long?" Lydiard is now a minor shareholder in the company. Whilst Arthur's reputation in America is huge, he isn't held in as high esteem here in New Zealand or in Europe which has meant that Foot Science haven't been able to take full advantage of his commercial 'pulling-power'.

In 1986 Foot Science took the plunge and hired a design engineer, multi-sport athlete Steve Gurney. In 1988 Gurney left having completed his contribution to Foot Science, and became a professional athlete, although he still has a lot of contact with them today. His legacy was an ambitious fully automated machine that produced the entire Formthotics insole ready to sell, which required only the feeding of a plastic sheet in at one end of the machine, and a large bin to catch the completed soles at the other end. David Boyd remembers an experienced Canadian manufacturer visiting the plant and watching this machine working and commenting "it's just as well you didn't know what you were doing…anyone with any brains at all would never have tried that." Globally however, there was not another machine like it, the product was unique, and so was the manufacturing process. This machine enabled Foot Science to fulfil its first large order of 10,000 pairs for a New Zealand company preparing to sell them to New Zealand pharmacies. The machine, running 24 hours a day took three weeks to make the order.

As the 80s wore on, limitations of the company's first business model became apparent to David Boyd. *"It was gradual, but by about 1989 it became obvious to me that it was imperative that we change."* The key realisation was that the company was too focussed on manufacturing and was rather thin on marketing and strategic thinking. The result was that Foot Science employed a marketing manager, Lee Retimana to bolster their expertise. Lee had completed her Bachelor of Commerce at Victoria University, had spent six years with IBM, and then became a production manager at G L Bowron. Her corporate and strategic experience has proved vital for Foot Science, particularly in the Australasian market, which she handles, and has done so for the last four years. At last balance sheet, up to 80% of FSI's inventory costs were marketing-related.

FSI's founders, who quickly established that the domestic market would not create sufficient demand for their product, which they initially considered a \$10 item, had adopted a global strategy early. As David Boyd recalls,

"In the beginning it was only going to be a \$10 product, three million pairs of feet were never going to be enough, so quite obviously we had to find more pairs of feet...We are certainly an internationally focused company... we know that our growth, or our real potential for growth, will always be in our offshore markets."

A salient event in the company's history then, involved the pricing of the Formthotic insole. This proved to be particularly important for the US market.

"We gave our product to a US podiatrist to use and 2 weeks later we came back and said, how did we get on? He said it does everything you say it does; on the other hand I find it really hard to find a place for it in my practice. So what's the problem? He said, here I am prescribing 10 to 20 pairs of prescription orthoses a week at roughly \$500 a pop. Then you came to me with a product that can actually do what 80% of these products can do, but I'll only get \$50: why would I want to do that?"

For Foot Science this switched on a huge light... the patient or consumer wasn't directly paying for the product, it was the insurance company! If the consumer were purchasing the product directly it would be different, however, the Insurance companies were buying the product, therefore what these insurance companies were willing to pay for insoles became the price of insoles. FSI had to come up with a price that positioned Formthotics as a professional product (they chose \$75) and had to enhance the product with information, packaging and marketing appropriate to that position. Thus, not only is the Formthotics insole a reliable product, but it is complemented by a quality package of marketing and education.

By focusing on international markets early on in the company's development, FSI has learnt a lot about exporting and the harsh nature of international competition, but this has come at the expense of developing the domestic market. In Boyd's words

"The international markets taught us a great deal very early because they are so harsh. Our intense focus on export markets in the very early period of our existence has been to the detriment of the company because we really did work almost exclusively, certainly more on export markets than we did on our local market. If we'd balanced that better we would have had a more stable financial platform earlier."

FSI's decision to focus on growth within existing markets, as opposed to unfocussed rapid expansion, meant that FSI had to determine which markets it was to target. Because it was

imperative that FSI maintain a tight market focus, Boyd was required to make a huge decision, develop FSI markets in America, or Europe? The highly competitive nature of the U.S insole market at the time, compared with the relatively untapped European market, meant the opportunity to enter the European market was far more enticing for the small manufacturer, thus FSI made the decision to enter Europe.

"We researched both North America and Europe, and the decision was that we were certainly not big enough to do both...after doing the research we set up test markets in California... and we chose not to go into the United States. The reasoning behind that was that there was a rash of competing products, which whilst we saw them as different, would not be perceived by the customer as different. So lots competing in the U.S market and very few in Europe."

In 1992 FSI was first recognised with an Export Commendation from the NZ Trade Development Board. About the same time, Foot Science used Trade NZ to shortlist a group of potential distributors for a part of the medical market to be targeted in the UK. Eventually it was narrowed down from six companies to two: Medisport, and Medipost. In the end Foot Science chose Medipost and the choice proved far-sighted as Medipost has gone on to aggressively expand its reach, buying out five of the six companies FSI short listed, including Medisport.

"I mean there was a huge amount of luck. However, the result is that they now form a group and they also acquired companies that weren't on my list, and they have a group of companies called the Mobilis group."

When dealing with large multi-product distributors like Medipost, FSI faces a significant challenge in getting the attention it wants.

"Now here's Mobilis with 9000 product items, why on earth would they spend any time with Formthotics? We looked at it and felt that what they would desperately need was not products, but marketing programmes that were obviously linked to a product. So what we put together as quickly as we could was a well-structured marketing programme based on Formthotic sales in New Zealand. And we were able to go in and say, this is what we can do for you...not only that but we will loan you our marketing manager for two weeks, to come up with a strategic marketing plan primarily for Formthotics, but it must be integrated into the Mobilis plan for it to be successful." By providing this essential service to the Mobilis group, FSI have effectively gained access to the Mobilis group's client list, a strong indicator as to the strength of the relationship that they have created.

In 1994 FSI became a brand partner in the 'New Zealand Way', in doing so they were required to meet the criteria of quality, environmental responsibility, values, achievement, honesty, integrity and openness. Following this, the Formthotic was voted "Best product of the year" at the Annual Prague Sports Trade Show held in the Czech Republic. Both the Czech and Slovak Republics are now two of FSI's most rapidly advancing markets.

By the end of the 1990s manufacturing was again becoming a constraint and FSI invested in a CNC machine, which was purchased in 1998. Eighteen months of prior research around the world had turned up few possibilities so a research arrangement was entered into with Technology New Zealand to contract PhDs in engineering from the Auckland University engineering school. It was thought that they would have to go right back to first principles to design a customised machine. However, a chance find in a local engineering magazine meant that FSI were able to trial a machine that they hoped would perform the function they required.

"There on the back page was an advertisement with a photo of a guy using a router system for cutting sheet plastic up in Auckland. So I literally just called 018 and said" can you get me the number of Routec Contract Cutting Services in Auckland?"... And I said to them, look you don't know me from a bar of soap, I've got nothing to do with your industry but I'd love to come and talk with you to see what you're doing with plastics, and that's where it started from."

Having established that there were only two of these machines in New Zealand that would possibly be suitable, FSI bought time on an SCM machine at KOVACS (a furniture manufacturer). After six months of trials, Boyd was convinced that this machine was the way to go. That decision has put them back at the forefront of insole development internationally. Nobody can do it more efficiently, and nobody can do it better. Whilst the CNC milling system makes for a more standardised product and more efficient manufacture, the automation means that their product is susceptible to being replicated by competitors if they have the appropriate machinery. Much of the Foot Science core strategy has not changed since its first day of existence. It has always been internationally focused, simply because it made sense to be. Crucial to FSI's success has been the relationship between the major shareholders, David Boyd and Dr. Charlie Baycroft. Both Charlie and David are equal partners, however David exclusively deals with the day-to-day running of the company, not only because that was the best way to reduce arguments, but because at the time the political nature of medicine in New Zealand meant that Charlie's involvement had to be kept reasonably quiet. Now Charlie is constantly requested to run, and present at, seminars. David praises Charlie's ability to act as a silent shareholder, being prepared to give David room to make mistakes and not interfere.

Conclusion

Foot Science International is a leading international supplier of high quality orthotic insoles. Despite having a small staff size of just fourteen, FSI have been able to compete with the world's largest producers, by offering a quality product, which is complemented with a sophisticated educational and marketing package. The Formthotics insole, FSI's core product, is a revolutionary insole in the sense that it can be moulded to an individual's foot instantaneously. It also costs a fraction of the price of most other orthotic insoles.

From an imprint left in the sand, David Boyd and Dr. Charlie Baycroft have developed a product that has revolutionised orthoses.

FSI is a prime example of a company embracing information and communications technology advancements, to overcome their distance from prime markets and their size in comparison to global suppliers. From a small running shoe workshop in the South Island, to the biggest footwear trade shows in Europe, Foot Science International is an example of a small, exemplar, and New Zealand exporter creating world-class products.

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