



# Repositioning Boston Scientific

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## **Executive Summary**

Boston Scientific's current faltering profits generate concerns about its future in the medical device industry. Following with its recent acquisition of Guidant, Boston Scientific should pursue a strategy of seeking new, profitable growth opportunities by becoming a leader in the developing field of cardiovascular surgery and cardiac rhythm. Boston Scientific has a strong start in this rapidly growing field with control of a majority of sales and existing expertise and strong research and development capabilities. With few competitors, the field is open to an industry leader, a strong possibility with Boston Scientific's background, although major steps must be taken in quality control to establish a solid reputation, marketing to increase its reputation, and capturing the power of complements to maintain a lead.

## **Background**

Boston Scientific began from the joint ventures of two entrepreneurs who teamed up in 1979 to buy the existing research and development company, Medi-tech, Inc., originally founded in the late 1960's. Continuing to focus on alternatives to surgery and Medi-tech's first product used with non-invasive surgery, steerable catheters, Boston Scientific has grown from its beginning revenues of \$2 billion in the late 1970s to over \$6.3 billion by 2005. Headquartered in Natick, Massachusetts, Boston Scientific currently operates 26 manufacturing, distribution, and technology centers and serves customers worldwide.

Boston Scientific currently runs under a divisional structure with 4 core business groups (cardiovascular, endoscopy, neuromodulation, and cardiac rhythm management) and 12 divisional businesses. Boston Scientific products include catheters, surgical grafts, coronary and ureteral stents, polypectomy snares, and lithotripsy devices. Their most profitable product, however, is the drug-eluting stent, mesh tubes that keep cleared coronary arteries open, with their latest Taxus stent which is attributed to approximately 38% of Boston Scientific's sales in 2004.

## **Current Problems**

Boston Scientific has made business acquisitions a key strategy since going public in 1992. Their latest acquisition is Guidant, a corporation which brings its specializations in cardiac surgery and rhythm management. In the past two years, Guidant's two main products: defibrillators that use electric shocks to restart faltering hearts and pacemakers that regulate heartbeats, have malfunctioned and caused the death of several patients, giving the company a poor reputation. In addition, Medicare has recently cut its benefits for cardiology products, which means up to one third of the payment for stents and implantable defibrillators is no longer covered. Due to these

cuts, even though Boston Scientific will service an increasing number of patients, there might be decreased profit per product due to these cuts. Moreover, even though Boston Scientific paid a hefty \$27 billion for the acquisition, significant earnings will not appear until 2009, which means that during the oncoming 3 years, Boston Scientific will lose a significant amount of opportunity cost in the form of interest.

Boston Scientific itself has been facing significant problems meeting Food and Drug Administration standards on many products in the last few years. Even as late as January, 2006, the FDA has given Boston Scientific's top managers letters uncommonly severe that may prevent the release of new products until the issues have been rectified (see Weaknesses in SWOT, Appendix). As a result, profits have dropped as Cypher, Johnson & Johnson's drug-eluting stent has taken over more of the sales. The decreased profits also reveal the dangers of selling only one major product – they are more vulnerable to changes in the market.

## **Why Cardiovascular Market Leader?**

The Medical Instrument and Supplies industry is a fragmented industry that holds a market capitalization of about \$162 billion and comprises of about 12,000 different companies. The US healthcare service market is the world's largest health care market of about \$.17 trillion. Boston Scientific, along with Medtronic and Johnson & Johnson, are the top companies in this growing industry.

The medical device market has undergone significant changes and growth since Boston Scientific Corporation started in the late 1960's. The rapid technological advancements rolled out one revolutionary device after another as the market expanded. In the United States, an important change was the introduction of a stronger Food and Drug Administration that regulated quality of medical devices. Internationally, developing countries such as China provided additional markets. Currently, as the population ages and lives longer, the population in the older age bracket increases and contributes to demand for improved life-saving and life-sustaining devices, as reflected by the continued growth of around 5% annually. The market is expected to increase dramatically as 44 million baby boomers will see 60 years by 2017. For Boston Scientific's specialities in cardiovascular devices, this would mean that the market for defibrillators and pacemakers would explode from close to \$10 billion to around \$50 billion.

Seeking the state-of-the-art tools, hospitals pursue the cutting edge of technology while holding high expectations for quality and reliability. Extremely important in the high stakes medical device market is reputation and a good relationship with the hospitals,

doctors, and specialists that make up the bulk of the customers. Currently, no clear cut leader exists in the area of cardiovascular surgery and cardiac rhythm is a relatively unexplored market. As depicted by Figure 2 in the Appendix, with their new acquisition of Guidant, Boston Scientific now controls a majority of the sales in the cardiovascular market. For products where quality can mean a matter between life and death, a good reputation is an especially effective entry barrier as buyers are rarely willing to risk trying unknown products based on price competition alone, making it difficult for new entrants to find a way to penetrate the market. If Boston Scientific were then able to create a reputation as providing the best surgical supplies in this area, they could secure long term benefits in sales with this formidable entry barrier.

## **Analysis of Opportunities**

### ***Entry***

The medical device industry is a very profitable market and is thus very attractive to new entrants. Although a solid reputation and government regulations provide entry barriers into this market, many new companies can still enter since the industry is fragmented. With an innovative product, smaller companies can carve out a niche in the market though they may be quickly bought out by larger companies. The large size and diversity of the market provides a share for everyone. FDA approval however is generally required for most medical products and since the approval time is increasing lengthy, ranging from months to years, new products often have a long delay before entering the market which puts more barriers to entering as a new, small company. The drug coated stent section of the market is more difficult for new firms to enter because with three large, established firms with highly competitive products, entrants will have a hard time displacing any of the three giants. Entrants in the medical device industry need to bring something novel to the market while patents keep competition away for a few years and allow a smaller company to survive.

Once in the market, it is imperative for entrants to establish a good reputation because without one, especially in the medical industry, there is little to no chance for success. Boston Scientific can use this powerful entry barrier to its advantage, as a solid reputation would not only make it difficult for new entrants to find a foothold, but would also provide a foundation for further expansion. Thus, Guidant can provide an initial launch into the market among the frontrunners, allowing Boston Scientific to establish an early influence and create its barriers to foster long-term growth into the cardiovascular industry.

### ***Buyer and Supplier Bargaining Power***

Medical devices are produced by Boston Scientific themselves, where suppliers merely provide the raw materials. These are materials that are commonplace and can be bought from other suppliers if necessary. The key is that suppliers don't hold the device patent, and thus have no bargaining power. However, unlike suppliers, buyers have much more bargaining power in this industry because there are so many top competitors with stents that are relatively similar or even better than Boston Scientific's stents and devices. Since there are also so few hospitals, buyers have the power to choose between buying a whole set of devices from Boston Scientific, or its competitor. They aren't restricted to buying from Boston Scientific because other companies in the industry have comparable and possibly even better developed technologies and devices.

Expanding into the less explored fields of cardiovascular surgery and cardiac rhythm, however, means more leverage for the medical device producer. By establishing a solid reputation and leading the technology, a leader in this field would be one of few. Even as new entries appeared, a leader could have more bargaining power with their buyers because quality is extremely important in such a high-risk industry.

### ***Substitute Products***

As with any product in the developing medical field, there is always the possibility that innovation will produce even better technology to replace the current best sellers. Currently, superior products could be viewed as substitutes, such as the Johnson & Johnson Cypher stent that has not had the same trouble as Boston Scientific in meeting FDA standards. Other substitutes would include more traditional surgery, although the use of stents and drug eluting stents can be seen as superior substitutes that will replace the arcane and traditional methods of surgery.

Fewer substitutes exist in the cardiovascular realm, with only a couple of other major companies devoting significant funding into research of new and improved devices. Medtronic, one of the leading companies in cardiovascular products, provides pacemakers as well as diagnostic devices. Medtronic has also had problems with faulty products, specifically their pacemakers, however. It makes sense, then, for Boston Scientific to improve quality and obtain leadership in the industry as quickly as possible to reduce the threat of existing and potential substitute products.

### ***Rivalry***

Price competition is not very vigorous in an industry dominated by few competitors. For example, there are only two major competitors, Medtronic and Johnson & Johnson, to Boston Scientific's most profitable product, the drug-coated Taxus stent. As a result, a

moderate price cut would not increase Boston Scientific's sale significantly. Both Taxus stents and Cypher stents have similar safety and clinical outcomes but Taxus has a slightly lower marginal cost when comparing the Research and Development fees. Due to restraints on price competition in this industry, Boston Scientific should not attempt to attract new customers by cutting prices.

The cardiovascular industry is still developing, but similarly sees little price competition, due to the low number of competitors and due to a trait of the medical market. Differences in price are not likely to influence customers if differences in quality and reputation exist. The first company to bring top quality and innovation would then get the first chance to create a favorable reputation. With the reputation in place, they would be in a position to charge the highest price without worrying about losing customers.

### ***Complements***

Complements for the Taxus stent and other cardiovascular products in general include available medication and services post-surgery, including some of the other products made by Boston Scientific, such as their infusion ports. More reliable technology for performing non-invasive surgery including the success and expertise of surgeons would also support sales of stents as more people are willing to undergo the procedure. Along the same lines, the available service and customer support could also help or hurt profits. General need for heart surgeries and the existence of cardiovascular problems also have an effect, although these are natural complements. Finally, malpractice lawsuits and healthcare plans can also greatly impact doctors and what they are willing to spend money and risk their reputations on as well as patients and thus the medical market in general.

### **Competitors**

#### ***Johnson and Johnson***

If Boston Scientific were to expand and strengthen its position in the cardiovascular industry, Johnson & Johnson should not offer too much opposition as long as its holdings are not threatened. Johnson & Johnson has a portion of their investments in the medical device and diagnostic fields, but few major products in cardiovascular surgery and cardiac rhythm. Thus, as long as their main interest, the Cypher stent, is not significantly threatened, Johnson & Johnson should not be willing to risk a price war to prevent Boston Scientific from expanding into the rest of the cardiovascular market.

## ***Medtronic***

Medtronic is one of the few companies with large investments in the cardiovascular market. The risk here rises from the fact that one of Medtronic's strengths (see Appendix I) is large investments in their research and development department that would be hard to compete with. Medtronic would most likely resist the most to a strengthening of Boston Scientific's position in the cardiovascular industry because a large focus of Medtronic's products is cardiovascular devices such as pacemakers, etc. However, they might not offer as much opposition as expected since Medtronic is also highly involved in other larger low-penetrated areas such as diabetes and other chronic diseases (see Appendix I) where it has already used the niche strategy to capture the market in those specific fields.

## **Strategy**

### ***Quality Control***

The major obstacle to Boston Scientific obtaining a strong reputation is its problems with product quality. The company delivers over 15,000 products and has direct marketing and sales in more than 45 countries. Communication within its organization, however, has been far from perfect. In some plants, managers were unaware that one of their products had been recalled, and Boston Scientific has received FDA warnings about shipping errors and lapses in keeping track of doctor' reports of device problems. In one case, Boston Scientific workers were even able to override a computer system and ship devices to a hospital even though the products had failed an inspection. In order to gain more public acceptance of both Boston Scientific and the newly acquired Guidant which have both been under FDA scrutiny, Boston Scientific must improve communications within the separate divisions and increase safety regulations within the divisions. Meeting FDA standards has been a continuing challenge as well\*.

Improvements in organization and communication can be made to insure that easily avoidable mistakes are not repeated. Being a worldwide company with such widespread plants and offices, it would benefit Boston Scientific to decentralize its operations. This will allow more efficient management of its separate entities and encourage internal competition to improve quality. In addition to these improvements for reputation's sake, Boston Scientific would do well to cut back on the mergers and acquisitions for the time being until management of its existing branches improves and changes in its internal organizational structure solidifies.

## ***Marketing***

After acquiring Guidant, as the largest heart-device making company, Boston Scientific should dramatically increase its publicity through marketing. First after all the Guidant and Boston recalling of their products, to make sure that patients and doctors still have faith in Boston Scientific's product, it should market to pacify those incidents and boost P<sup>1</sup> \* More specifics available in the Weakness section of the SWOT – see Appendix hospitals, but also customers. Even though the patients might not have too much say on what stent or pacemaker he/she should use, with enough advisements and then enough patients requesting, hospitals might change from rivalries's product to Boston Scientific's product. Since Boston Scientific now acquired Guidant, it can also offers package deal with special price for bulk quantities of heart devices to large hospitals.

To boost the product images of the recalled stents, pacemakers, defibrillators, etc., Boston again should redesign the products, focusing on how to prevent the errors from occurring again. Then they should develop or encourage tests to show how the new products are significantly better. At the same time, they should make various advertisements through different media such as professional medical magazines, television or by handing out booklets in hospitals emphasizing how the new generation of products is improved. The safer models could then be offered as free replacements for those recalled. Finally, Boston Scientific should guarantee that they would recall any future product if they found any safety issues.

Once their reputation is patched up, marketing will continue to be important in determining the potential markets and establishing the connections needed in major hospitals that will make up the bulk of the customers. Since no leader has emerged to create a strong reputation in the overall market yet, Boston Scientific can hold on to the largest share of sales by being the first to provide the best in quality and innovation.

## ***Complements and Synergies***

The newly expanded Boston Scientific with the added cardiovascular and cardiac rhythm specializations of Guidant is primed for a strong position in the cardio field. To achieve this strong position, however, requires the use of complement strategies in addition to repairing the damage of past quality issues. By establishing lasting relationships with suppliers and buyers, and maintaining the research required to stay on top, Boston Scientific can fortify a good reputation. Not only do such bonds strengthen the company's position in the market by direct sales benefits, but they also provide additional entry barriers as new arrivals must pay much more to break into the established network.

To take advantage of the opportunities from complements and synergies, Boston Scientific can take many approaches. For such things as expertise and service, a good strategy would be to provide these themselves by educating buyers and continuing their history of excellent customer service. More reliable technology, however, is a far more daunting task, where jointly researching new technology or performing research in support of current products would be more feasible. In addition, Boston Scientific could consider subsidizing research in new or improved products and their benefits.

Another available strategy is to seek support from complements. Hospitals can promote non-invasive surgery and increase the popularity of related products. Also, establishing relationships with more doctors and hospitals with such surgical capabilities would also benefit Boston Scientific in the long term. Finally, while the actual need for cardiovascular services is out of any company's control, both practically and ethically, expansions to provide services in addition to direct intervention could be established. For example, Boston Scientific could make preventative services available, which would not only improve their reputation for serving the greater good, but also provide an additional alternative to profits if the need for cardiovascular surgeries and products were to decrease.

Finally, establishing agreements, perhaps even contracts with hospitals and doctors is another essential step toward maintaining leadership in the market. In addition, links to complements can be just as important. When a new product is developed, for example, Boston Scientific must work with not only its direct buyers (hospitals, doctors), but with medicare and insurance companies to ensure that pricing is reasonable and that the product can be made available to the majority of patients. In this way, Boston Scientific can ensure that they stay ahead with new technology in being the first to provide the best.

### ***Concluding Remarks***

Boston Scientific should take advantage of its golden opportunities to being one of the first movers into the cardiovascular market. The key to its long term success is building a good reputation as quickly as possible to provide a strong support for further expansion toward leadership in the cardiovascular and cardiac rhythm sector. They must also recognize the value of establishing strong marketing strategies and relationships with complements in the new areas of growth. Following through with these steps toward securing the market would provide Boston Scientific with an amazing growth opportunity in a soon to be half a trillion dollar industry.

## **Appendix I: SWOT analyses**

### Boston Scientific SWOT analysis

**Strengths:** Boston Scientific's primary strengths stem from its culture. The culture arose from the company's goal to improve patient care by developing technology to reduce risk, trauma, cost, and recovery time. This goal moved Boston Scientific to see doctors as more than just customers. With each new product and market entry the company worked with physicians to instruct them on how to market the new, less invasive procedures. Due to these close partnering relationships, Boston Scientific successfully avoided bad markets and acquisition mistakes. These relationships also helped transition applications of the existing technology into multiple specialties. In addition to the company culture, Boston Scientific is always seeking new areas for improvement. While competitors were out wineing and dining the power elites in medicine, Boston Scientific actively searched for people who were out to make changes because it realized that innovation begins within the establishment itself.

Another strength comes from its strategy. For example, Boston Scientific often tries out new technology in a less attractive field (e.g gastroenterology with stents) to gain experience and experiment without the stress of competitors. Thus, Boston Scientific usually had the first-mover advantage in many of these fields. The strategy of working with multiple specialties allowed BSCI to develop something for one field while learning important lessons for applying that technology in another field. In this way Boston Scientific gained greater research efficiency, creating benefits for three or four markets at once rather than focusing on any one research area. This strategy not only produced multi-use technology and opened new market applications, but also helped to speed these innovations into the market place, creating substantial patient benefits.

Finally, the company also has a strong customer service and support department that provides convenient services such as free online membership to its website for medical professionals. An online form and phone number for product related questions is also available.

**Weaknesses:** Product quality remains a key factor of success in the medical device field, a major problem facing Boston Scientific today. In a market where a small defect can cause deaths, quality affects the very livelihood of the company. In the past couple of years, the Food and Drug Administration has issued several warnings for various medical products, including infusion ports for delivering drugs in the body, catheters for implanting procedures, and Boston Scientific's top-selling product, the Taxus Drug

stent. The drugs have been labeled with serious regulatory deficiencies, causing a voluntary recall of certain products. Even more recently, the FDA issued a warning rare in its severity, calling on Boston Scientific to fix its continuing quality problems at certain plants and offices. Targeting the top management, the warning could prevent the introduction of any new products until the specified problems are addressed.

Such quality issues cripple Boston Scientific not only by negatively impacting its reputation, but by preventing growth in the field through new product lines. The continuing problems also reflect an even larger deficiency in management and communication. At least one of the shipments of defective products has been due to a miscommunication where the plant did not receive orders to cancel delivery of the recalled line in time. In comparison, Johnson & Johnson has a strong reputation based on a history of ensuring quality products. Current sales of the Johnson & Johnson Cypher stent have just out-performed those of the Taxus, the two making up nearly all the sales in the stent market.

Another weakness Boston Scientific seems to recognize and is taking steps to fortify is their dependence on one major product – the Taxus drug eluting stent. As mentioned previously, Johnson & Johnson is making much headway in the stent market and with no major alternative sales to the Taxus, Boston Scientific faces decreased profits and a risky strategy in general, given the capricious nature of the medical market – new products and technological innovations are constantly replacing previous top sellers. The recent acquisition of Guidant, while diversifying their product line, adds another potential shackle to Boston Scientific’s faltering gait. Troubled with meeting FDA standards themselves, Guidant could make improvements in quality and organization more difficult. In addition to costing Boston Scientific \$27.2 billion, the potential profits from Guidant are a thing of the future. Such an investment could then be very costly for the present.

***Opportunities:*** Despite the current technological advances, the healthcare industry sustains a rising demand for services, especially with the aging baby boom generation. People are living longer with the help of medical advancements which increases the demand for medical devices. Boston Scientific’s risk, however, is its dependency on a single high profile product, the stent. They are attempting to remove this risk with the acquisition of Guidant and diversifying their product line.

The world today is moving towards fully integrated digital hospitals and higher use of programmable logic devices in medical products. Most research today focus not only on treating people but also providing early diagnosis of disease and problems and a “complete solution,” for example, diagnostic equipment, data storage servers, and

interface software as a full package. Boston Scientific has an opportunity to move into providing more “complete solution” packages in healthcare technologies with its new acquisition of Guidant Technologies. With a greater diversification of products that Guidant introduces, Boston Scientific can include many cardiovascular products in a full package and service deal for hospitals.

With a diversified product line, Boston Scientific can now offer more packaged deals to hospitals, including not only their high profile stents but service and related cardiovascular devices as well. By offering more packaged deals, therein lies the opportunity to fully capture hospitals that will eventually use more of your product since they will be offered along with the desired stents. Also, with a diversified product line that Guidant adds to the company, Boston Scientific may now expand and reach new customers with new products without risking the current stent market.

**Threats:** Although Boston Scientific’s drug eluting Taxus stents are relatively new, it faces a multitude of threats. Drug eluting stents (DES) have started a new era in stents and its clinical success has many believing that DES will double the world market for stents to \$5 billion. With this type of potential, many companies have introduced their own drug covered stents. Boston Scientific’s most notable threats in the stent market include Johnson and Johnson’s Cypher and Medtronic’s Endeavour, both of which have been approved by the FDA. Aside from other DES, Boston Scientific faces threats from other types of stents such as bioabsorbable stents and time delayed stents such as Conor’s Costar stent. Bioabsorbable stents are very attractive in that they do not leave metal behind in the body. The Costar stent, on the other hand, has many microcompartments which allow the drug to elute over fixed time intervals. Even recent developments in stem cell therapy and gene therapy have the potential to replace the need for stents entirely. However, in the short run, drug-coated stents have become extremely popular and are currently in wide use. With the largely fragmented industry, new entrants with innovative technology are very common. The long delay for FDA approval prevents serious threats from emerging quickly.

# Johnson and Johnson SWOT Analysis

## Strengths

- Strong Reputation - Johnson and Johnson has found an offering that is unique in this industry by being a historically reliable and safe company. For many years, The Wall Street Journal has reported J & J as having the best corporate reputation.
- Huge Market Capital promoting innovations - J&J is basically the largest company in the industry. That means that they have more resources (money, labor) for R&D purposes.
- As a huge conglomerate, J&J has the ability to use the result of one area of their research to help another area of their research (cross-researching?)
- Balance between the growth and stable life stages - The Company could be considered a stable company based on its long history and steady sales. On the other hand, the company sees steady growth due to innovative products and diversification through company acquisitions.
- Drugs in Production- Johnson and Johnson has many drugs in the late stages of development. These drugs include innovative treatments for migraines, hyperactivity, anemia, sinusitis, chronic pain, and premature ejaculation.
- Independence of any one of its particular products - unlike many small medical companies, J&J has no dependence on any one particular products.

## Weaknesses

- Large amount of revenues reinvested into R&D - J&J put in a large portion of its revenues back to R&D every year.
- Not nearly as famous among consumers in Pharmaceuticals and medical devices

## Opportunities

- Aging Population from the babyboomers - The medical supplies and services needed by the elderly population will increase simultaneously with the aging of the large baby boomer population.
- Without the more and more fragmented medical industry, J&J has large capitals to acquire small but potential companies.

## Threats

- Competition from generic companies – Expiring patents creates competition from generic companies.
- Forced lower drug prices – Insurance companies pressure for lower drug prices
- With fast growth in medical industry, such as medical devices and other pharmaceuticals, it is going to attract a lot of the new entries.

## Medtronic SWOT Analysis

### Strengths

- New product introductions through a strong research and development department. (approximately two thirds of current revenues were from products introduced within the past two years)
- Put money into investments. Substantial investment into R & D : spending increased by 14% to \$852 million. Investments in expanding clinical trials which revealed important information about therapy and devices to help fuel R&D development. Investments in additions to technical support, customer service, sales and marketing organizations to support broader line and expand clinical indications.
- Well positioned in large, underserved global markets such as for chronic conditions like sudden cardiac arrest, diabetes, and movement disorders which are only 10-20% penetrated.

### Weaknesses

- The outsourcing to allow MDT's gross profits to increase as operations and cost of products sold declines will be offset by more focus on their core competencies of developing and marketing high tech medical device products. However, this might affect all the major competitors within the industry and competition may not happen
- Recent acquisitions have helped grow MDT's product line and helped to expand into such areas as the diabetes market with the acquisition of MiniMed but diversification makes MDT look more like a mature healthcare company such as J&J and therefore might not be able to justify abnormal long term growth rates.

### Opportunities

- Same as Johnson and Johnson, the market is growing due to people living longer and the upcoming aging of the baby boomers.
- Fragmented industry means there's opportunities to specialize in other areas and create more niches in the industry.

### Threats

- With the large potential of the medical devices industry, there lies the threat of many new entrants whose entry is feasible with a big, new innovation in medical devices.

**Appendix II: Financials**

Figure 1 – Major companies in the Medical Device market

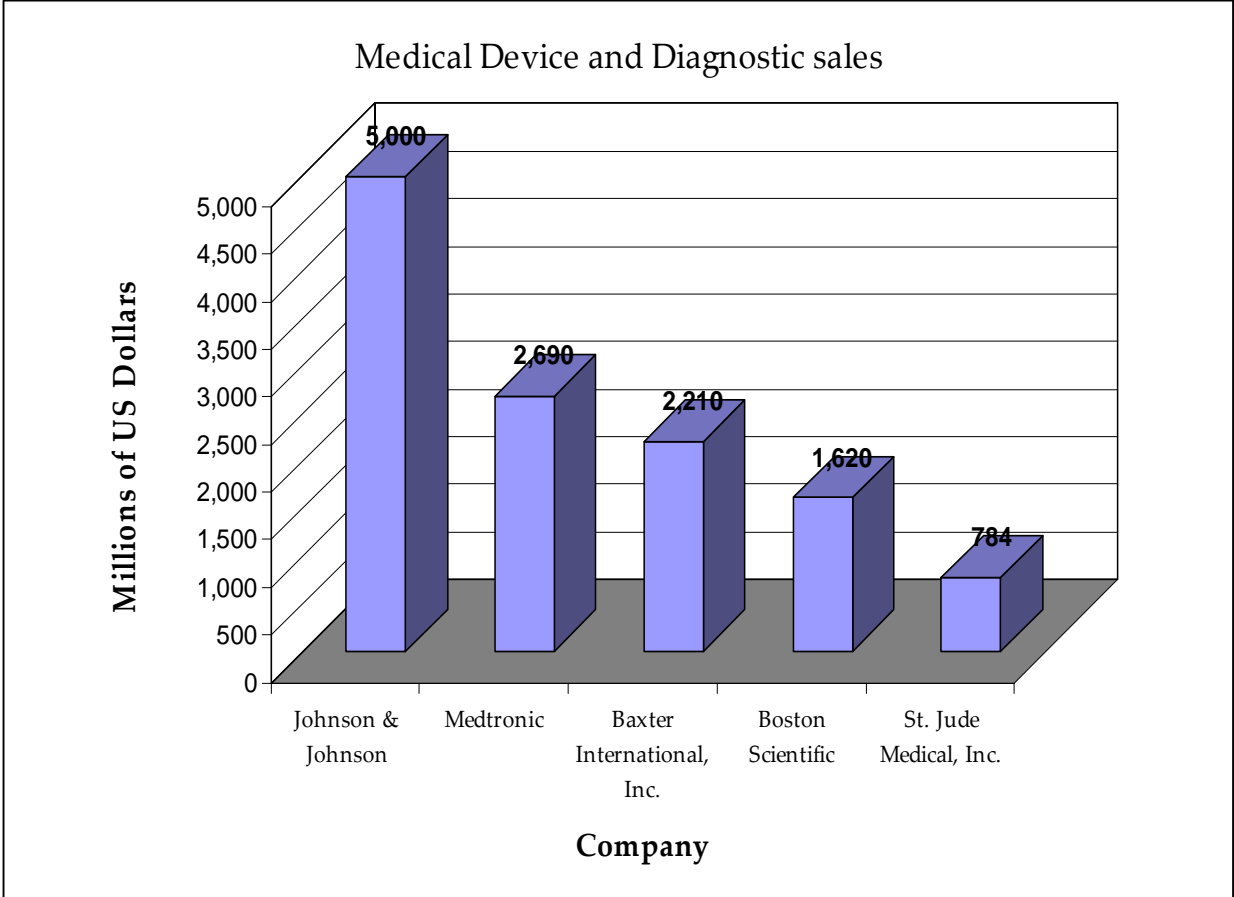
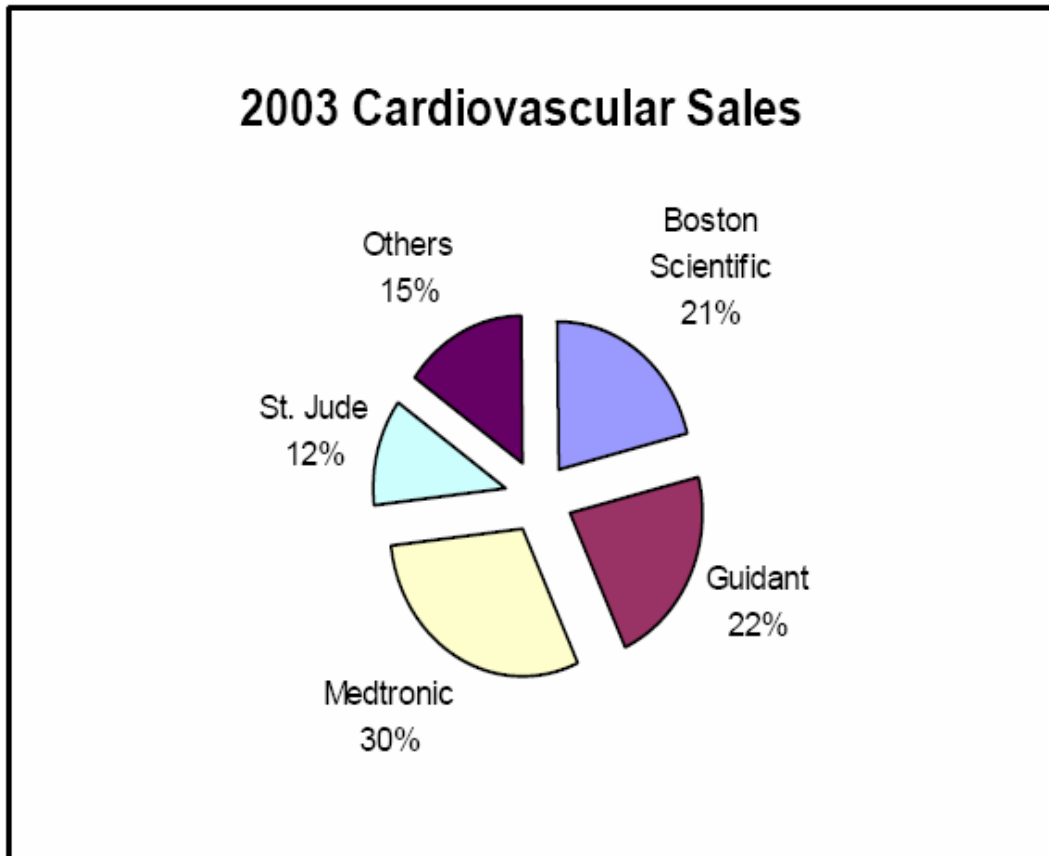


Figure 2 Division of sales in the cardiovascular market for 2003



From [http://www.biz.uiowa.edu/krause/MDT\\_SP04.pdf](http://www.biz.uiowa.edu/krause/MDT_SP04.pdf)

**Figure 3**

**Key Products Manufactured by Key Industry Players (Cardiovascular Devices Industry)**

<b>Key Players</b>	<b>Bare Metal Stents</b>	<b>Drug-Eluting Stents</b>	<b>Cardiac Pacemakers</b>	<b>Defibrillators</b>	<b>Heart Valves</b>
<b>Boston Scientific</b>	X	X		X	
<b>Guidant Corp.</b>	X		X	X	X
<b>Cordis Corp.</b>	X	X			
<b>Medtronic Inc.</b>	X		X	X	X
<b>Cook Inc.</b>	X				
<b>Abbott Vascular Devices</b>	X				

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