

# Supply chain of the iphone 4 series essay

[Business](#)



**ASSIGN  
BUSTER**

Discuss the Supply Chain Management of a Particular, Product/Company/Service of your Choice. In this report we will analyse the supply chain management of the iPhone 4 series. This will be done by researching the different parts of the supply chain, looking at how they are integrated and 'referring to processes and exchanges across multiple organisations,' (Verma and Boyer, 2010) and how the 'operations management consists of the processes that effectively produces, transform, and deliver a product or service,' (Verma and Boyer, 2010). Apple products are known to be at the top end of technological advancement, as one might expect, they involve a lot of components. Apple in California designed the iPhone 4. Foxconn assembles it in China with many of the components coming from all around the world including Germany and Switzerland. One of the biggest costs for apple when making the phone is paying its chip suppliers like Samsung, who provide vital components including processors and flash memory.

This is according to the latest teardown report conducted by iSuppli. They concluded that 'Apple pays Samsung about \$27 for flash memory and \$10.75 to make its applications processor; and a German chip maker called Infineon gets \$14.05 a phone for chips that send and receive phone calls and data,' (The New York Times, 2010). A new feature of the iPhone 4 was the addition of a gyroscope; this feature is made by STMicroelectronics based in Geneva, costing Apple an additional \$2.60. Distribution of value for iPhone, 2010 (Kraemer, Linden, and Dedrick, 2011) Distribution of value for iPhone, 2010 (Kraemer, Linden, and Dedrick, 2011) If you turn over an iPhone you will see "assembled in China," however this doesn't mean that

most of the profit or revenue goes there. According to iSuppli (Andrew Rassweiler, 2010), ' out of the \$600 retail price, only \$6.

54 is given per phone to the assembly giants', such as Foxconn. ' Much of the value in high-end products is captured at the beginning and end of the process. China makes very little money on these things. ' (Jason Dedrick, Syracuse University). ' Profits to first-tier suppliers is based on the location of their corporate headquarters. The iPhone is assembled in mainland China factories owned by Foxconn, a Taiwan-based firm,' (Kraemer, Linden, and Dedrick, 2011). Apple has become the worlds most valuable firm, overtaking Google, with its net worth approximated to be 70.

6 billion pounds (www. apple. com).

This is due to their globally expansive supply chain involving firms from Taiwan, China, America and Singapore. For the release of the first iPhone, ' 30 companies on 3 continents worked together' (www. txyt. com) to produce the phone. The use of countries such as these in the manufacturing process creates a win-win situation for Apple and those contracted to help supply products.

Apple are able to produce products cheaper due to the economies of scale and having long-term contracts with these firms, who gain in value and prosperity by simply having an affiliation with the technological giant. An example of Apple being able to produce at a lower rate than their competitors is with the Taiwan firm Pegatron who produce and assemble a seventh of all iPhone 4S units, at a much cheaper labour cost rate that firms in the western world would charge. (www. shmula. com). There are many <https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>

other globally known firms based all over the world involved in the process of developing apple products, Samsung develop A4 and A5 processors for the iPhone and flash chips enabling Apple products to be able to show videos etc. Sony, LG and Sharp all allow for the high quality camera that comes with Apple merchandise.

Various firms are required for overall product completion, e. g. Corning create the touch screen facilities and Nuance create the speech recognition software for the 4s iPhone model. These firms amongst others are pivotal in ensuring an accomplished and efficient supply chain leading to Apples worldwide success. It should however be noted that arguably the most important feature of the iPhone is the software and this is developed in the USA. Although they are all contributing to the same product, many of the companies in the iPhone supply chain have differing objectives. The most obvious firm is Apple, whose objective is to stay ahead of the competition in the smart phone market, constantly trying to make their products smaller, more attractive and more useful than anything already available.

This shows in their newest model, the iPhone 4s which includes brand new features such as Siri and dictation, with improvements on old features such as a better quality camera with a faster shutter speed, Apple used the phrase ' the most amazing iPhone yet' (apple. com, 2011), giving the impression that they are the only competition. Broadcom, the company that contributes to the touch screen technology, has different and occasionally conflicting objectives. While Broadcom want to keep the touch screen technology under wraps, meaning Apple must purchase it from their company based in the US, it would be more economical for Apple if they <https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>

could have a contract with a company in areas such as the far east and Latin America which are ' low labour cost,' (Waller, 2003). Another example of conflicting objectives is time disputes, between the end product supplier and a component supplier. Apple had problems when developing the iPhone 4 due to huge levels of customer demand before the product was even released.

This forced Apple and the exclusive U. S. carrier AT& T to stop taking pre-orders one day after pre-ordering was made available. (Gonsalves, A, June 30, 2010 Information Week) This, combined with the fact that the iPhone 4 had a problem with its innovative antenna, highlights the problem of overwhelming demand for the supply chain management of firms- the risk of mistakes if time pressures are too strong. In this instance Apple arguably lost some credibility, as a firm promising top quality products let its customers down. It also handed momentum to rival firms, such as Nokia, who were offering the N8 as direct competition to the iPhone. One of the key decisions that a firm such as Apple has to make is - should the products be developed in-house, or externally, by outsourcing? With outsourcing comes greater risk of objective clashes.

By outsourcing, Apple gives away control of some important capabilities. A balance has to be found between low cost production and quality of goods and services produced by suppliers. Also the welfare of workers employed by Apple's suppliers comes into consideration. There have been reports in China of mistreatment of workers who develop Apple products. Apple's largest Chinese supplier, Foxconn, demonstrates the clash of moral values between firms at different points of the supply chain. Reports of an authoritative <https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>

structure in place by the managers at Foxconn and workers even threatening suicide, (Chi-Chi Zhang (Feb 2012) CNN) suggest that this firm prioritises speed of production over welfare of the workforce. This mistreatment of workers will have a direct impact on Apple's public image and Apple has come under public scrutiny for this. The New York Times has published an article stating that although Apple would not like to be associated with these sorts of firms " some former executives concede that finding new suppliers is time-consuming and costly" (Duhigg, C Barboza, D (Jan 2012) New York Times) Strategically, an issue which a firm faces in a supply chain, is balancing quality, delivery and cost.

For a high profile company like Apple, a flawed product would be extremely damaging for its reputation and therefore high quality products and extensive testing is a necessity. However, with high quality often comes high prices, and to keep their products affordable enough for their target market Apple has to watch the other companies and their supply chain, always ensuring they have the best deal. However, while keeping an eye on the product and where it is coming from, Apple must also ensure that they deliver new products on the expected date.

Any delays in release would result in distrust in the company and a loss of custom. Fortunately for Apple, supply chains based in the US have a number of strategic and operational advantages - the US is ' the world's largest consumer, producer, and trader' (Li, 2007) and as such companies based there enjoy the benefits of speaking the same language and using the same currency. There are also ideal transport links both internally and to other countries, making it easy to transport goods anywhere in the world. This <https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>

does not make supply chain management in the US completely issue free, however, as much of the labour involved is more expensive than in developing countries. Working both the internal and external dimensions of the supply chain in line with the needs of the agreed markets relies on solid information between firms (Hill, T (2000) p417). The importance of IT can be seen in Apple's online ordering and delivery processes, which allow customers' needs to be satisfied with greater ease. " more than 60 percent of all Verizon iPhone 4 sales so far occurred online". ( Yin, S Feb 2011, Pcmag).

This shows the increased use of the Internet by customers, and hence the importance of IT as a factor in the supply chain. This diagram represents a vertical supply chain. The increased use of IT by Apple has allowed for the increased integration of the supply chain. Firms in the chain are more interconnected and the supply process is sped up significantly due to the reduction in communication delays and the improved flow of information between firms. An army of 300, 000 employees work for Foxconn, assembling iPhones. In 2010, eighteen of their employees attempted suicide, with fourteen deaths.

The suicides introduced Foxconn to much of the world in the worst terms imaginable—as an industrial monster that treats its workers like machines, mainly 18-to-25-year-old, to make products like the iPhone at seemingly impossible prices. ' (Balfour and Culpan, 2010). These events prompted Apple to dispatch an audit team to investigate the environment and nature of the plant.

Apple found that it violated its code of conduct in many areas such as ' including excessive overtime, an overly complicated wage structure, and unacceptable living conditions,' (Balfour and Culpan). Even though Steve Jobs stated that he was ' all over' (2010) the incident, he would never cut off any ties with the factory or Terry Gou the owner, as Chang Tien-wen writes, " Steve Jobs' achievements wouldn't be possible without Terry," (Chang Tien-wen, *The Tiger and The Fox: Terry Gou's Global Competitive Strategy*). However, people try to criticise everything and look for controversy when there often isn't any to be found. Jobs came out of the negative spotlight asserting ' They have 400, 000 people there. The rate is under what the US rate is, but it's still troubling. ' (Steve Jobs, Apple). One extraordinary process and quality improvement technique that Apple uses involves deliberately understaffing themselves with the philosophy that less is more.

This is because Steve Jobs believed that by ' understaffing and operating with reduced funding, you can make the team more productive and innovative', (www. ere. net) judging by the huge success of Apple you can't really argue with this method.

This success can in fact be measured by looking at the revenue generated per employee, Apples figures show that an astonishing \$2 million in revenue is created per member of staff. Another quality improvement technique used within Apple is onboarding, this is the cultural creation of ensuring that once a task is perfected and completed another task is immediately undertaken and perfection is once again pursued and achieved. This process of onboarding goes hand in hand with Apples Time Quality Management procedures, this is that in Apple it is agreed that all employees, managers, <https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>



suppliers and virtually anybody else involved with the creation of the products share equal responsibility for the quality of Apples inventions.

(www. apple.

om) Steve jobs even once stated that he deemed the customer to be equally responsible and that by the consumer giving feedback and stating what they want to see, it allows quality improvement to be an easier task. (www. apple. com). Apple for many years has had huge profits, ' for the three months to December 31, Apple reported net income of \$13. 06bn compared to net income of \$6bn for the same period the previous year,' (Rushce, 2012).

However it could be argued that Apple are too conscious on growing as a business, and neglect some of the moral considerations as with the Foxconn situation. As a recommendation Apple should consider holding back their release date on new products in order to avoid customer disappointment when supply cannot meet demand, as happened mentioned above.

The vast sales figures for the iPhone 4, show that despite Apple having issues with various aspects of its operations, the company demonstrates extremely successful supply chain management. Word count: 2084

(excluding title and references) References: Barboza, D. , 2010. ' Supply Chain for iPhone Highlights Costs in China. The New York Times, [online] 5 July.

Available at: ; It; [http://www.nytimes.com/2010/07/06/technology/06iphone.html?pagewanted=1&\\_r=1&hpw](http://www.nytimes.com/2010/07/06/technology/06iphone.html?pagewanted=1&_r=1&hpw) Balfour, F. , Culpa, T.

, 2010. ' The Man Who Makes Tour iPhone. ' Bloomberg Businessweek, [online] 9 September. Available at: ; It; <http://www.businessweek>.

<https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>

com/magazine/content/10\_38/b4195058423479. htm; gt; Kraemer, K. L. , Linden, G. , Dedrick, J.

, 2011. Capturing Value in Global Networks: Apple's iPad and iPhone, pp. 5-6.

Moore, M. , 2010. Steve Jobs says Apple is ' all over' suicides.

The Telegraph, [online] Available at: ; lt; [http://www. telegraph. co.](http://www.telegraph.co.uk/finance/china-business/7798741/Steve-Jobs-says-Apple-is-all-over-Foxconn-suicides.html)

uk/finance/china-business/7798741/Steve-Jobs-says-Apple-is-all-over-

Foxconn-suicides. html; gt; Rassweiler, A. , 2011. ' Teardown Analysis.

' iSuppli, [online] Available at: ; lt; [http://www. isuppli.](http://www.isuppli.com/Abstract/P14858_20110208082511)

com/Abstract/P14858\_20110208082511.

pdf; gt; Verma, R. , Boyer, K. K. , 2010. Operations and Supply Chain

Management: World Class Theory and Practice.

Canada: Nelson Education. p. xvii. Li, L. (2007). Supply Chain Management:

Concepts, Techniques and Practices. London: World Scientific Publishing Co..

22. Waller, D. L (2003). Operations Management A Supply Chain Approach.

2nd ed. Kent: Thomson. 14. Rusche, D.

, 2012. Apple makes \$13bn profit in three months. The guardian, [online] 24 January. Available at: ; lt; [http://www. guardian. co.](http://www.guardian.co.uk/business/2012/jan/24/apple-reports-record-revenues)

uk/business/2012/jan/24/apple-reports-record-revenues; gt; Sullivan, J.

, 2011. Talent Management Lesson From Apple: A Case Study of the World's

Most Valuable Firm. Ere [online] Available at: ; lt; [http://www. ere.](http://www.ere.net/2011/09/12/talent-management-lessons-from-apple-a-case-stu)

net/2011/09/12/talent-management-lessons-from-apple-a-case-stu

<https://assignbuster.com/supply-chain-of-the-iphone-4-series-essay/>