

Brunelleschi's dome



**ASSIGN
BUSTER**

Filippo Brunelleschi was in many senses a modern day entrepreneur in the Middle Ages. He is the architect and innovator responsible for building the Santa Maria del Fiore, arguably the greatest dome ever built. In the years leading up to and during the construction of the dome, his life was surrounded by managerial aspects. There were several critical success factors for the construction of the dome including access to financial resources, raw materials, and product equipment.

The building of the Santa Maria del Fiore was not something that could be done overnight, in fact it took the better of two centuries until it was complete. Probably his greatest competitive advantage, Brunelleschi was able to separate himself from his competitors by using technology to create new products and come up with innovative solutions to problems. Seeing as the creation of the dome was the first project of its kind, certain product equipment was required but not available. Brunelleschi himself invented and created much of the equipment needed, such as the ox driven hoist and the pulley.

With the Opera del Duomo constantly bidding out the different projects involved with the construction of the Santa Maria del Fiore, Brunelleschi was able to create far more innovative designs than his competitors to win these bids. Another factor that played into Brunelleschi's competitive advantage was the fact that there wasn't much work in the city of Florence. Laborers worked for a cheap rate and did not hold any power. When they went on strike, Brunelleschi simply fired them and found a replacement which was in need of work.

Filippo Brunelleschi basically held a monopoly on the labor market. The organizational behavior was one that the capomaestros, or managers, did not have to motivate the workers one bit. The fact that the workers held employment in a city where jobs were in desperate shortage was enough motivation. Something very important to any project's completion is time management. Entrepreneurs must master time management skills in order to get your product to the market within your budgeted time. When dealing with a new product, time frames are difficult to estimate because of delays and unforeseen circumstances, but Brunelleschi was able to manage his time and reach deadlines productively. When he had to come up with a way to hoist the marble up to the top of the dome, he did it quickly and effectively. When there was an unexpected crack in the wall after it was completed and he needed to come up with a way to fix it without delaying the overall completion of the dome, he was able to. He did not only manage his time productively with the building of the dome but with other projects as well.

Like any good entrepreneur, Brunelleschi did not put all of his time and effort into one project such as the dome, but instead took on many side projects. These little projects were not only a source of income or a way to get more recognition, but most importantly they allowed him to test his techniques and skills intended for use on the dome. He gained much respect and notoriety for his skills and successes on projects other than that of the dome. In a sense, these side projects were a way of marketing for himself, showing his precise skills and abilities through these successful projects.

Although he seemed to be very well rounded, Brunelleschi did not excel in the area of communication. He was paranoid, constantly worrying about his designs or plans being stolen which is why he kept to himself. He felt as if his competitors believed the saying, "instinct tells us to watch what our competitors are doing and simply try to do the same thing better." During a project, communication is key- the managers and workers need to be on the same page and communicate directions and progress. This is something that was never present during the building of the dome.

In a business, knowledge must be shared within all units of the organization, but Brunelleschi did not believe this. If Brunelleschi had known the importance of communication, he could have received feedback from his workers and possibly avoided setbacks such as the cracks in the nave of the church. In addition to his lack of communication, another setback of Brunelleschi's technique was the poor working environment. The culture of the business created during the building of the dome was not a worker friendly one, with no benefits or accommodations given to the workers.

There was no set of directions but rather, workers 'went with the flow' as Brunelleschi gave directions on the fly. This was a disadvantage to his progress because things may be forgotten without realizing their importance and crucial role to the project. With his big fear of plagiarism, it's no surprise the very first patent was issued to Brunelleschi for his boat that was to be used as a transporter known as Il Badalone. Ironically, this was Brunelleschi's most unsuccessful invention but he felt the need to protect it.

Nonetheless, it can be seen that patents are a necessity for entrepreneurs. Brunelleschi was in constant fear of his competitors stealing his ideas and designs and this stands true in today's society as well. Entrepreneurs need to protect their ideas from their competitors because everyone is looking to get ahead and come up with a new and better idea. Brunelleschi often followed his prime instinct, trusting it would work and that it was the best idea. This stood true for many of his projects and inventions.

When he decided to lay the transverse bricks to prevent the dome from collapsing, there was no past documentation stating that this would work but he felt that it was the best way to go about it. Often times, entrepreneurs have to make final decisions based on gut instincts and Brunelleschi was what we may call a master of this. Being a very confident man, Brunelleschi often refused advice or help from other sources. He very rarely collaborated with others on designs or projects, but rather did it all himself. It may be argued that he may not have had the success he did if he teamed up with others.

It may also be argued that if he did take advice from others, some of his unsuccessful inventions might have had a different and more successful outcome, such as Il Badalone. Filippo Brunelleschi is one of the most influential architects in history, with success in many areas due to his innovative ideas. He had access to plentiful financial resources and was able to take advantage of a labor force that worked for minimal fees. His ingenuity provided him with the capability to create unique product equipment that could not be found anywhere else.

Brunelleschi was a proud and confident man, his confidence helping him in many ways. When his theories were questioned, he simply followed through and proved why his designs were going to work. When problems arose on the job, he trusted his intuition and was able to fix the problems. Although he showed many characteristics of an entrepreneur, Filippo Brunelleschi is not known as one of the greatest managers in history. In order to be successful in today's world, he would have needed to brush up on a few things, such as his poor communication skills due to his fear of plagiarism of his designs and ideas.

Communication is a must when talking about being an effective manager, but this was not all he would have to alter. He was a selfish man, refusing to work with others on projects or reluctantly working on a project with others. Effective managers need to be able to collaborate and work with numerous people at once. Brunelleschi was always more worried about his reputation and image rather than the overall well being of the project. A manager needs to put the overall success of the business first before their own ego and pride.