



## Quality As Competitive Advantage

Hind Alghamdi<sup>1</sup>, Christian Bach<sup>2</sup>

<sup>1</sup>University of Bridgeport, 126 Park Avenue, Bridgeport, CT 06604  
halghamd@my.bridgeport.edu

<sup>2</sup>University of Bridgeport, 126 Park Avenue, Bridgeport, CT 06604  
[cbach@bridgeport.edu](mailto:cbach@bridgeport.edu)

### ABSTRACT

Since 1970s quality has become a target for most organizations in the United States and most firms have spent millions of dollars on quality activities in order to reach defect-free productions [1]. This paper aims to discover how quality becomes a competitive advantage in different organizations. It includes some of the organizations that won Malcolm Baldrige Award in 2012 and shows what kind of criteria that made them qualified to win the award. The paper came up with a model called Performance Excellence shows the factor that lead to excellence performance in an organization. On the other hand, the paper aims to show what quality means from customer's perspective. There is a survey conducted among 100 users of smartphones in order to discover what kind of features users prefer and is quality on of them or not. The results of the survey came up with the importance of quality from customer's perspective. It shows that quality is one of the most important features users are looking for in a smartphone.

### Indexing terms/Keywords

Quality, Quality Improvement, Performance Excellence

### Academic Discipline And Sub-Disciplines

Business and Cultural Studies.

### SUBJECT CLASSIFICATION

Business Management Classification.

### TYPE (METHOD/APPROACH)

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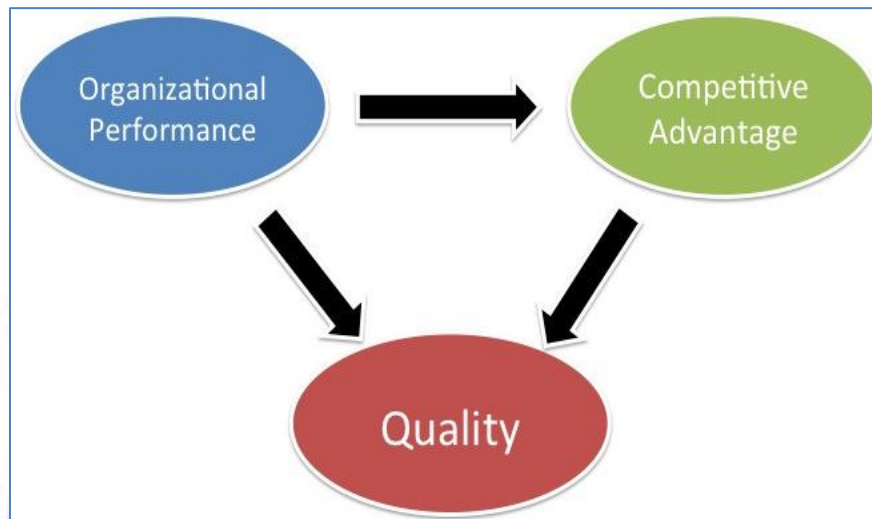
[editor@cirworld.com](mailto:editor@cirworld.com)

[www.cirworld.com](http://www.cirworld.com), [member.cirworld.com](http://member.cirworld.com)

## INTRODUCTION

In 1970s and 1980s the quality has become a target for most organizations in the United States and most firms have spent millions of dollars on quality activities in order to reach defect-free productions [1]. In the 1990s, competition between different companies has increased. In the meantime, organizations has considered quality as priority and focused on it. Most of the companies have worked hard to improve the quality of their products and services to be able to compete with other organizations. On the other hand, there is still controversy about the effectiveness of quality on organizational performance [2]

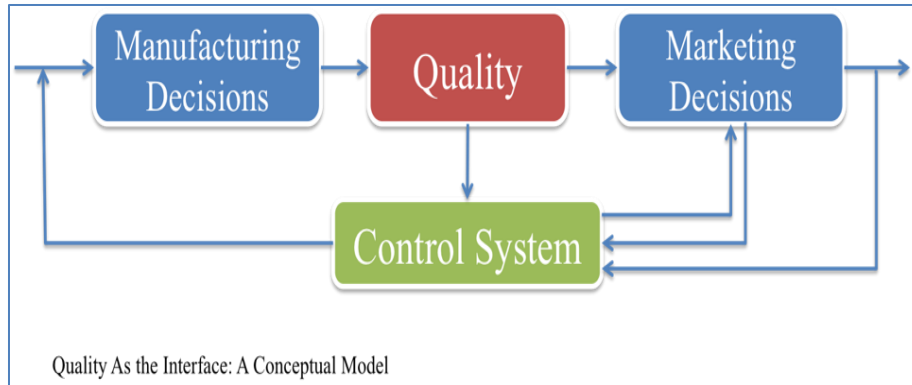
The main purpose of this paper is to show how quality affects on the performance of organizations. There is a study proves that quality has direct impact on organizational performance and indirect impact on organizational performance through competitive advantage. See the figure below.



The direct direction indicates that high level of quality leads to improve organizational performance such as improve financial and marketing performances. On the other hand, the indirect direction indicates that quality gives the organization competitive advantage then, competitive advantage leads to improve organizational performance [2]. Some researchers defined quality from two points of view: Manufacturing and Marketing. From manufacturing side, they defined quality in two different concepts. The first one is quality of design, which focuses on products features that meet customer's needs [3]. The second one is quality of conformance, which focuses on whether the organization is matching the design specifications, or not, as mentioned previously. From marketing side, they defined quality in two different concepts: quality of objective and quality of perceived [4]. The first one is quality of objective, which refers to the products that is considered excellent from technical side. The second concept is quality of perceived, which based on how consumer evaluates quality level of the products. In the first concept, quality of objective, its value should be constant. On the other hand, the value of the second concept varies from one consumer to another [5]. The figure below shows the traditional model of the quality from the point of view of previous departments, marketing and manufacturing.



Target refers to the target level of quality and enters to manufacturing as input in order to design the product. Then, manufacturing produces the product, which meets the specification that defined in the input (Target). The issue here is that the level of quality the product has may not match what marketing is looking for. The solution would be by adding a feedback loop that used as a link between the two departments, as shown in the figure below:



The above model called: Quality as the Interface, since quality used as an interface between manufacturing and marketing. The control system used to test the output that comes from manufacturing and see if it matches what marketing and market share are looking for [5].

Quality management is used in order to reduce costs and improve customer's satisfaction [6, 7]. This purpose meets the market view of competitive advantage. Competitive advantage is the way to measure how long the organization is able to maintain its position between competitors [8]. Researchers have built two models to represent competitive advantage. The first one called Market-based model, which focuses on cost and claims that environment does not select efficient firms that match what consumers are looking for. The second model focuses on firms' resources instead of cost as what the first model focused on.

Organizational performance is the way to measure how well the organization is able to achieve its objectives [9, 10]. In the meantime, measuring organizational performance via its financial performance will not give an accurate result about how well the organization performs [11].

## RESEARCH METHOD

In the recent years, combining research methods is considered important when they used to achieve "rich theoretical insight [12] p. 613." The purpose of being in business is to make money. Since organizations are looking for different ways that lead to increase their profits, quality is one of the ways that will do so. Recently, customers are more aware of quality and they are able to recognize it. In the same manner, customers are ready to pay for it. Moreover, it is obvious that products with high level of quality are more profitable.

In this paper, I've tried to explain how the quality becomes a competitive advantage and what kind of tools organizations need in order to achieve high level of quality. I also mentioned the process of quality improvement, which helps organizations to survive and produce high quality products better than competitors' products.

My research focuses on the best tools and process are used in order to achieve quality. It includes some of the organizations that won Malcolm Baldrige Award in 2012 and shows what kind of criteria that made them qualified to win the award. It also covers what quality means from customers' perspective.

In my research, I've reviewed about hundred of articles and research papers. I included more than forty of them in my paper, while using the rest of them to get a clear understanding about quality in organizations and processes that used in quality improvement. On the other hand, I was trying to realize what quality means from customer's perspective. I did a survey that was about smartphones features in order to see what kind of features customers prefer. The survey was conducted online using Survey Monkey website. I got over hundred responses and the result is shown in this paper.

## HOW PERCEPTION OF GOOD QUALITY ALLOW A COMPANY TO SUCCESS

Under this title, I'll try to show some evidence that good perception of quality in any organization will lead to succeed. Companies are always looking for the fast way to bring new products to market. This might happen in order to attract more customers or to capture a larger market share. Anyway, some researches show that speed - only - in bringing new products to market is not the best way to increase sales growth [13]. Consumers are usually looking for high-quality products [14]. On the other hand, companies may not realize the value of quality. Why? There are different reasons beyond why companies undervalue quality. First reason, most companies believe that nothing attracts customers more than bringing new product to market. Second reason, researchers found that companies find difficulty in defining and measuring quality[15]. Third reason, sales growth and any other benefit that comes from quality will take a long time to be. Fourth reason, what quality means is depending on point of views, there is no universal agreement [16].

It is normal that if a company provides high-quality products, then the demand for its products will increase [17, 18]. This increasing on demand may lead the company to get a larger market share. Based on the previous information,



we can say that product quality affects directly and positively on market share. As a result, product quality may affect indirectly on costs, because market share has a direct impact on costs [19].



## USING THE MALCOLM BALDRIGE AWARD CRITERIA TO ACHIEVE COMPETITIVE ADVANTAGE

First of all, What is MALcolm Baldrige National Quality Award? The MALcolm Baldrige National Quality Award is presented to organizations that apply a successful quality program and an excellent performance every year. It was established in 1987 and covered three categories: manufacturers, service businesses and small businesses. Then in 1999, they added two more categories, which are education and healthcare. And finally in 2007, they added nonprofit category. Therefore, the award is presented annually for six categories: manufacturers, service businesses, small businesses, education, healthcare and nonprofit.

In 2012, the Malcolm Baldrige Award was given to the following four U.S. organizations:

1. Lockheed Martin Missiles and Fire Control (manufacturing)
2. MESA Products Inc. (small business)
3. North Mississippi Health Services (health care)
4. City of Irving (nonprofit)

This paper will cover two of them and discuss what kind of features and processes that made them qualified to gain the Malcolm Baldrige Award in 2012. The two organizations that will be covered in this paper are: Lockheed Martin Missiles and Fire Control and North Mississippi Health Services [21].

### Comparison Between Two of Malcolm Baldrige Award Winners

Lockheed Martin Missiles and Fire Control (MFC) is works on designing and manufacturing sensor systems for the military in the United States. It is located in Texas and has other branches distributed in nine states in the United States. It also has some other branches in the U.K. and Japan. On the other hand, North Mississippi Health Services is considered as a nonprofit health care system. It has six hospitals, thirty-four clinics. The organization is located in northeast Mississippi and northwest Alabama. The table below compares between the two organizations' criteria and how they apply these criteria in their organizations [21].

Organization	Lockheed Martin Missiles and Fire Control (MFC)	North Mississippi Health Services (NMHS)
<b>Leadership</b>	The performance evaluation is related to the company's mission statement	Establish a Physician Leadership Institute in order to assist physician leaders.
<b>Strategic Planning</b>	<ul style="list-style-type: none"> <li>• Aims to develop strategic and work plans based on customer demands and market needs.</li> <li>• It merges processes and simulation to come up with a continuous improvement.</li> </ul>	<ul style="list-style-type: none"> <li>• Organization's strategy was built by the collaboration between employees and management.</li> <li>• Apply an open communication strategy with employees and customers lead to high level of loyalty and satisfaction.</li> </ul>
<b>Customer Focus</b>	<ul style="list-style-type: none"> <li>• 99% on-time delivery</li> <li>• Customer loyalty has increased 18% in three years</li> <li>• Identify customer needs through analyze its market process.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides a free phone line to get their customers feedback.</li> <li>• Implement face-to-face interviews with patients and visitors to get their perspective.</li> <li>• Focus on customer service and review the customer needs</li> </ul>



		<ul style="list-style-type: none"> <li>Using social media such as Facebook and twitter to receive customers' comments</li> </ul>
<b>Workforce Focus</b>	<ul style="list-style-type: none"> <li>85% of employees are proud and satisfied.</li> <li>All employees get a training for ethics awareness annually</li> </ul>	<ul style="list-style-type: none"> <li>Ability to maintain employees reach to 90%</li> <li>Employees are satisfied.</li> <li>Employee engagement reaches to 90% in the last two years.</li> <li>Full-time career counselors were employed in order to help employees for improving career skills</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>Repeatable orders from customers have increased by 32%</li> <li>Return on investment has increased by 23%</li> </ul>	<ul style="list-style-type: none"> <li>Leads competitors in market share by 13%</li> <li>Revenues have increased in the last three years.</li> </ul>

**Model Of Performance Excellence**

From the above information about Malcolm Baldrige Award and winners, I came up with this model that shows the factors that affect on the performance excellence.



1. Leadership: Leadership concept is related to the organization's vision and based on how to communicate this vision with all other activities. Leadership has a significant impact on the organization. That's happen because leadership can affect on the managers and employees behaviors. Successful leadership usually leads to improve skills and productivity.
2. Strategic Planning: Having a strategic planning will help an organization to list its objectives and has a clear view about what it needs to do in order to face any difficulties. It is one of the successful ways that leads to improve organizational performance.
3. Customer Focus: The organizations should not focus only on providing a high level of service, but also keep track of how customers behave toward the organizations products and services. Customers' behaviors include purchase the same product many times and market the product to other friends and relatives and so on. Recently, many researchers found that organizations start focusing on customer loyalty more than customer satisfaction. That's because customer loyalty related to haw customers behave toward the organization, while customer satisfaction based on how customer attitude toward the organization [20].
4. Workforce Focus: Employees have a significant impact on the organizational performance. Recently, researchers found that satisfied employees should lead to excellence performance. To have satisfied employees, an organization should make sure that it provides a proper work environment for its employees [20, 21].

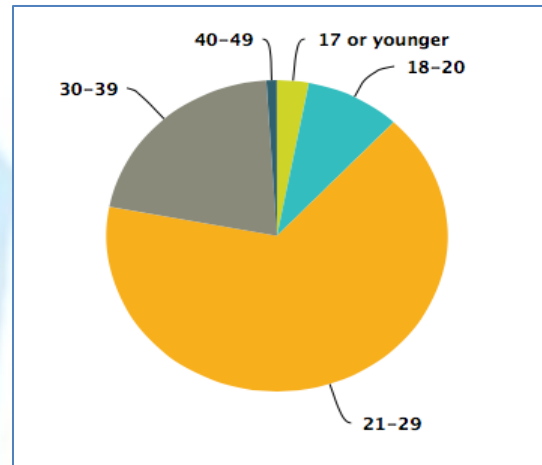


## RESEARCH FINDINGS

Lately, the use of smartphones has increased rapidly. Most people use smartphones as their primary mobile phone. In order to know what kind of features in smartphones attract people and is quality one of them, I conducted a survey to discover the smartphones from customers' perspective.

### ***A survey of Smartphones' Features From Customers' Perspective***

The survey was conducted online among 100 users of smartphones. The purpose of the survey was to discover the features of smartphones that attract users and if the quality of smartphones is one of them or not. The survey was conducted using Survey Monkey, which is a web-based survey solution. 66% of respondents were between 21 to 29 years old, the rest were older and younger.



The first question of the survey dealt with the brand of the smartphone. More than half (58%) of respondents were using iPhone, 34% using Android Samsung, 4% Blackberry and the rest were other kinds of smartphones.

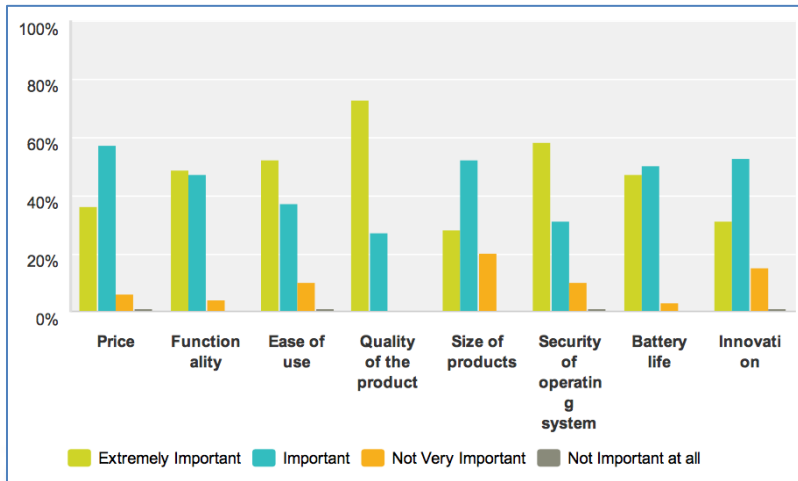
The second question of the survey dealt with the important features that users are looking for in a smartphone. The choices and responses are listed in the figure below.

Answer Choices	Responses
Camera quality	74% 74
Battery life	68% 68
Touchscreen responsiveness	60% 60
Design	57.00% 57
Display quality	53% 53
overall speed	47% 47
operating system	42% 42
Call quality	36% 36
GPS capability	32% 32
Warranty	17% 17
Total Respondents: 100	

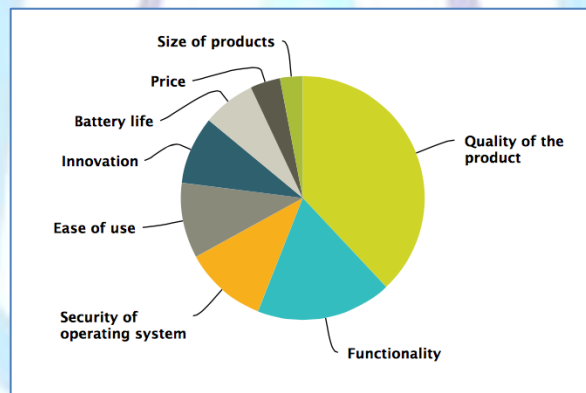
The third question has two parts, the first part dealt with the features that users cannot accept smartphones without them and the second part dealt with the most important feature that users are looking for in any smartphone. In the first part, as shown in the chart below, I noticed that no one of the respondents rated quality of the product as not very



important or not important at all, while some respondents rated all other features as not very important and some of the features were rated as not important at all. This is a sign of the importance of quality from customers' perspective.



In the second part of the third questions, not surprisingly, quality of the smartphone got the highest responses (38%) and functionality came after (18%).



If any conclusion I could discover and summarize from the above data, I would say that customers today are aware of what they are buying. They are looking for specific features and characteristics and ready to pay if they found what they want. In another word, lower prices are not attracting customers any more. Quality, functionality, security and many other features are more important for customers.

## CONCLUSION

Managing quality is critical in business today. Quality in products, quality in services and even quality in the entire processes of an organization is so important. It helps the organization in different aspects. From customer's aspect, providing a high-level of quality in products and services will satisfy and retain customers. From the organization aspect, quality maintains a good reputation for the organization, reduces the risk of cost, and increases its retain on investment and revenues.

In this research paper, I've tried to discover how perception of good quality allows an organization to success. The paper also covered the quality improvement processes, tools and steps that aim to help organizations to apply effective quality improvement program. I've looked at different successful organizations and tried to figure out what kind of criteria and processes made them qualified to win the national quality award. In this paper I was looking for what quality means from customer's perspective and how customer evaluates the quality level of any product, since customer is the critical aspect in any business.

The findings came up with the importance of quality and quality improvement. In another word, applying the tools and processes that were mentioned in this paper, with considering the factors, will lead to a successful organization. It will lead to increase profits and attract customers, because customers are aware of quality and ready to pay for it. I've learned that shapes, prices and even brands of product are not attracting customers any more. Customers are looking for specific features and characteristics that distinguish the product and made it different than other products.



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## Author' biography

Hind Alghmdi

Hind grew up in Riyadh, Saudi Arabia. She attended Imam Muhammad Bin Saud Islamic University in Riyadh where she received her B. A. in Computer Science and Information Systems in 2011. Then she went to the U.S.A. and get her master degree in Technology Management from University of Bridgeport in 2013. Hind is interested in total quality management and information system.

Christian Bach

He holds multiple degrees: Ph. D. University at Albany, SUNY, MBA University at Albany, SUNY, MS Biochemistry University of Freiburg. His research interests are Low power VLSI, RF circuit designing, low power sensor networks, flexible nanoelectronics and piezoelectric materials, design and analysis of algorithms and bioinformatics.