



GSJ: Volume 10, Issue 6, June 2022, Online: ISSN 2320-9186  
[www.globalscientificjournal.com](http://www.globalscientificjournal.com)

## **THE EFFECT OF USING QUALITY COSTS APPROACH IN IMPROVING PERFORMANCE EFFICIENCY IN OMAN REFRESHMENTS COMPANY**

**Nawf Sulaiman Mohammed Al Hoqani**  
Middle East College  
[17f16831@meec.edu.om](mailto:17f16831@meec.edu.om)  
Muscat, Oman

**Dr. Maria Teresa Matriano**  
Assistant Professor, Middle East College  
[maria@meec.edu.om](mailto:maria@meec.edu.om)  
Muscat, Oman

### **Abstract**

This research focuses on the effect of using the quality costs approach in improving the performance efficiency of Oman Refreshments Company. Quality costs are important to manufacturers and the impact of their use in improving performance efficiency and financial performance. The effect of using the quality cost method is to measure costs and extend and improve good quality to gain customer satisfaction and increase productivity. Improving performance efficiency in quality costs is an approach that works on continuous improvement of quality in Oman Refreshments Company. Oman Refreshments Company, since its inception, has been working on identifying and evaluating quality costs, from knowing its main components, and then marketing and producing high-quality products. There are challenges that the company faces, but it always tries to overcome these challenges and prevent defects. The population in this study includes employees specializing in finance in Oman Refreshments Company, and the sample size was taken through the interview and distribution of the questionnaire in the accounting department, sales department and human resources department totalling 60. Recommendations have been developed to meet the challenges through which to develop and improve performance efficiency and to measure quality costs and their impact. Finally, the expression of all the goals and policies of the project will be presented in the results of the study. The main result revealed that the basis for the success of Oman Refreshment Company is to maintain and pay attention to evaluating the costs of quality and its products at all levels to achieve and improve performance efficiency and the disclosure of the main component of the cost of quality which is cost control.

**Keywords:** quality costs, performance efficiency, financial performance, cost approach, cost control

## Introduction

Today, quality has become important to manufacturers, and the impact of its use in improving the efficiency of performance in the company as well as its procedures against quality costs and their impact on the efficiency of financial performance, as well as knowing how to apply quality costs that help increase and improve performance efficiency in the company. Planning budgets can be used so that their accuracy would depend on good disclosure of quality costs and the expression of all project objectives and policies in improving quality and performance efficiency. This study also presented the most important strategies that affect quality cost management to make Oman Refreshments Company a successful journey in providing high quality products and drinks. Oman Refreshments Company uses cost-feasibility as an internal quality indicator (Fenton, 2019). The effect of using the quality costing method is to extend and improve quality to increase customer satisfaction, reduce manufacturing costs and increase production. Every attempt to improve quality must take into account the costs involved. Quality costs cannot be reduced until they are measured or quantified. Raising the performance efficiency in quality is a diversified approach to continuous improvement of quality in Oman Refreshment Company, which will in fact lead to an increase in the company's net benefit in quality costs (Ezzikhe, 2019). Oman Refreshments Company has been working since its inception in the marketing and production of high quality brands at reasonable prices. The costs of not controlling the quality of services and products before they are delivered to customers can be incurred by the company. It is the company's quality management that decides how to use the quality control tool to improve it and know its costs. The effect of using the quality cost method in a sense is the costs of quality design, follow-up and prevention to prevent defects and breakdowns of manufactured products. (Schiffauerova, 2021)

## Research Objectives

- 1- Defining and evaluating the main components of the quality costs approach and the impact of each in improving the company's performance efficiency.
- 2- Determining and evaluating how the quality costs approach has improved the company's performance efficiency.
- 3- Identifying challenges when using the quality costs approach to improve the company's performance efficiency.
- 4- Making recommendations to address the challenges of using the quality costs approach in improving the company's performance efficiency.

## Research Questions

- 1- What are the main components of the quality costs approach and the impact of each in improving the company's performance efficiency?
- 2- How did the quality costs approach improve the company's performance efficiency?
- 3- What are the challenges when using the quality costs approach to improve the company's performance efficiency?
- 4- What are the recommendations to address the challenges of using the quality costs approach in improving the company's performance efficiency?

## **Problem Statement**

The effect of using quality costs approach is the amount of money that the factory paid and spent in producing a product that serves and satisfies the customer, and provides what is lacking, in addition to the value of the failures caused by non-conformity of product specifications with quality requirements, whether at the internal or external level of the facility. The study of quality costs approach is one of the most important basic principles in achieving quality management in Oman Refreshments Company. Associated with any quality program undertaken by manufacturing facilities, it is worth emphasizing that there are problems with quality costing methods that appear in products before they are offered to customers. The association becomes direct as evaluation activity increases. Internal errors lead to a significant increase in the costs of internal failure. By conducting a questionnaire and an interview with employees of Oman Refreshments Company, solutions to these challenges will be identified and how to increase performance efficiency.

## **Literature Review**

### ***Cost-quality approach has improved the company's performance.***

Manufacturers are currently looking at quality cost strategies to improve quality performance and increase customer satisfaction by lowering manufacturing costs and enhancing efficiency. It must be done with Cost of Quality (COQ). Quality improvement programs require continuous monitoring and management. Budget limits can be determined using COQ estimation. Organizations can use COQ analysis to detect the effects of poor quality and to identify, measure, and control a quality cost approach (Thompson, 2018).

Organizations must define measurement and analysis to verify that the product not only meets an acceptable level of quality but also satisfies customer satisfaction in terms of cost competitiveness. COQ is used to prioritize quality improvement projects and approaches and as a measure of performance and cost reduction. The total expense of designing, implementing, operating, and maintaining a quality system, as well as resources devoted to continuous improvement and product failure, and all costs associated with achieving product quality, is referred to as COQ (McCombes, 2019).

Experts argue that a quality cost approach improves the quality of a product or service and can reduce production costs, enhance productivity, and improve customer satisfaction. COQ is seen as a technology to help companies reduce manufacturing costs by exposing uncontrollable expenses and wastes. Manufacturers are now under great pressure to analyze and control their expenditures (Douglas, 2020).

According to previous studies, the climate of global industrial firms is increasingly competitive, which has made the quality costs approach a useful tool for monitoring and achieving cost reduction to stay competitive. COQ helps organizations define and evaluate specific quality standards, thereby increasing productivity (Geary, 2019). It has been stated that the annual cost of poor quality in a manufacturing environment can be as high as 15% of sales and 30% of production expenses (Geary, 2019).

### ***Challenges when using the cost-quality method to improve the company's performance.***

The organization should demonstrate the potential benefits of its quality costs approach through some quality activities and quality projects. Manufacturing cost estimates are based on the challenges and impacts of current low-quality data (compared to improving performance efficiency in product quality). When generating such estimates for low-quality products, it is difficult to identify all the ill effects or challenges that emerge from low-quality data (as well as all the potential costs associated with the quality of high-quality data, and its development and improvement). As a result, the quality of the content has worsened, and the potential costs associated with low-quality claims are categorized as progress. This research can help identify cost-reducing options as well as more frequent commercial terms for product quality (Bergerud, 2018)).

Although the majority of the academic literature treats screening time as a fixed parameter, it was pointed out that it is modifiable and flexible. Moreover, its value affects some system factors, including the cost of sorting, the fraction of errors detected, and, as a consequence, the final quality level. Some defects appear to the human eye in different industries, such as beverage manufacturing, while others can only be identified by measuring the amount of material, in which case an organization can choose between running a quick test that detects only a small percentage of problems or giving the operator plenty of time for a more comprehensive examination. Furthermore, little research has been done on the relationship between screening decisions and consumer expectations for quality and pricing. According to studies, some buyers are willing to pay more for higher quality products, such as “premium prices matched by superior quality” (Buzzell, 2017). Customers receive high-quality products, while defective products are eliminated. As the inspection procedure is time-consuming and expensive, customers may not even notice an improvement in quality despite such strict standards.

COQ can be used to get the attention of top management for quality and performance improvement programs. It is critical to establish the COQ system and foundations to establish a quality culture and implement quality management; and consolidate a culture of quality and management in terms of practices. Quality cost methods and programs are a measure and parameters that can be used to predict and plan for future quality costs. COQ can be used to start maximizing product value, process productivity, and customer satisfaction. The purpose of quality costs is to increase customer satisfaction needs through design quality and manufacturing quality. The objective of the quality cost approach is to increase customer satisfaction requirements through product quality and design (Bergerud, 2018).

### **Research Methodology**

The research methodology of this project focused on strategies used in collecting research data. Research methodology is the way the researcher writes his project after previous studies from which he quoted research information and data. This research methodology includes a discussion of the nature of the study and the study population, taking the sample and knowing its size. The data collection tool and its validity, such as the questionnaire and the interview, through which the data will be collected and analyzed will be taken into account as well.

## **Research Design**

Research design is a general strategy for achieving the objectives of the study and helps to focus on research methods appropriate to the subject of the study so that it is completed successfully and ensures that the research problem is effectively addressed through data collection and analysis. The type of design to be used will be determined by the research problem and so with the appropriate tools and how to use them in the research to obtain reliable results. The function of research design is to ensure that the evidences and results obtained will enable the research problem to be addressed and analyze relevant information obtained through the survey results. The questionnaire will contain quantitative questions across a variety of categories (e.g. yes or no, agree or disagree, and open-ended questions). This questionnaire will assist the researcher in collecting and analyzing information.

In this study, an exploratory and descriptive research approach will be used, and thus the effect of using the quality cost approach in improving the performance efficiency of Oman Refreshment Company will be explored and described. Questionnaires and interviews depend on research design methodologies, study method, and knowledge of its objective. It is very important to know what type of data will be collected and how it will be processed in the research design, and whether it will be quantitative or qualitative information. The researcher takes the exploratory and descriptive approach to achieve the objectives of the study and define the theory by collecting data from the Oman Refreshment Company so that the researcher concludes and explores all the information and data (devaus, 2022).

## **Sampling Technique and Sample Size**

### ***Sampling techniques***

The sampling technique aims to obtain various statistics and data about the study, which are quantitative and qualitative through sampling so that it helps to conduct the research study and determine the research results correctly and in detail. It can be difficult to find the right sample and there may be unforeseen problems such as the cost factor of the quality of the respondents. The researcher will use the probability sampling method because it is one of the best ways to select the correct sample for the population working in Oman Refreshments Company (McCombes, 2019).

### ***Probability sampling***

Use of randomization to ensure that each item has an equal probability of being included in the questionnaire chosen for analysis. One of the most important requirements for probability sampling is that there must be a known and equal chance of selection. Probability samples will be taken to create a truly representative sample of the project. The framework consists of a sample of the population interested in collecting detailed data.

### ***Sampling Size***

Formation and determination of the sample size through the number of specific people or a group of the population was chosen by the researcher to provide correct and integrated information. With appropriate sample size in this research, the researcher will benefit from the accuracy of the information assessment and the strength of the study in extracting the results that will be reached from the company's employees. Previous studies play an important role in helping the researcher choose the appropriate sample size for the study. Sampling is a time- and cost-effective method

that forms the basis of the research design. Through the study sample, the study can access the search results faster, save time and effort, and provide information of acceptable and realistic quality. Therefore, the sample size in the research plays a major role in arriving at the correct results (Hennie, 2022).

### Result Analysis

Quantitative is statistical data by measuring the data using values and numbers. It's open data for exploration, the use of pre-made tools, digital data, and a large number of people. The data type is numerical data (statistics). Qualitative data is non-statistical data. They are not measured using numbers but are categorized by traits and characteristics. Its purpose is to conceptualize the problem, develop hypotheses for quantitative research, and clarify why, how, and when. Qualitative are small samples collected through the use of personal interviews, the number of individuals is limited, and the type of data is exploratory data (images and words).

*Table 1: The company pays attention to the quality of its products.*

Answer Choice	Responses	Percentage
Agree	34	58.1%
Strongly agree	16	25.8%
Neutral	10	16.1%
Strongly Disagree	0	0%
Disagree	0	0%
Total	60	100%

Table 1.0 shows different percentages of the company's interest in the quality of its products. The highest rate of approval was 58.1% by 34 people, and 16 people agreed

strongly with 25.8%. Some of them are neutral at 16.1%. While no one chose to disagree or strongly disagree, the percentage was 0%.

Oman Refreshments Company cares about the quality of its products and considers quality more than making a good product. Corporate managers always have views on product quality and interest in it. Studies indicated the extent and awareness of product quality. Of course, in order for the company to succeed, it must maintain and pay attention to the quality of its products at all levels. The company cares about the quality of its products, it helps to achieve efficiency through cost and utilization of all available resources (Drucker, 2022).

Table 2: Improve product quality

Answer Choice	Responses	Percentage
Agree	28	46.7%
Strongly agree	18	30%
Neutral	11	18.3%
Strongly Disagree	1	1.7%
Disagree	2	3.3%
<b>Total</b>	<b>60</b>	<b>100%</b>

Table 2.0 shows the company's attempt to improve the quality of its products. Of course, the highest rate of approval is 46.7% by 28 employees and 18 people strongly agreed with 30%. 18.3% neutral. In addition, there is a small percentage of employees who chose not to agree with 3.3% and among those who strongly disagreed was 1 employee with 1.7%.

Oman Refreshments Company always tries to improve performance and improve product quality to achieve long-term profitability and sales growth. Improving the quality of the product is not an easy attempt, but the rewards of trying and doing so have overcome many challenges. Improving product quality and improving overall performance in the company helps build trust and motivation with the customer. Oman Refreshment Company is working on strategies that it can implement to

improve quality through successful production and creativity that leads to good performance in the company and the market (Editorial, 2021).

## Conclusions and Recommendations

The study concluded that quality costs in improving performance efficiency are the focus of this research. Through this study, the researcher was able to analyze the objectives of the research and discuss the reasons that led to the effect of using quality costs in improving performance efficiency. The main objective of this study is to provide insights and suggestions for future research. It aims to show the impact of using quality costs in improving the performance efficiency in the company by measuring the accounting costs that management needs to make future decisions related to managing and improving quality costs. To achieve the objectives of the research, the future researcher may be able to deduce other techniques and make decisions that help them plan and know the use of the quality costs method and improve performance in the future.

Oman Refreshments Company should occupy a good position in the business sector due to continuous expansion, good products offering, strong business, and market response time through cost control and actual performance evaluation. The company must maintain it at the same level of performance and better and continue to improve quality and performance, and understand the foundations of success through the use of preventive activities for which it maintains costs.

There was a need to give the company more importance to quality costs to overcome the frustration in accounting for quality costs and its impact, as the company has a major role in reducing total costs and increasing revenues through data recordings, applying a quality management system to operation, services and production to provide good service and to ensure quality accuracy; and product development to improve performance, product testing before purchasing, and creating more time for reflection to improve the company's performance efficiency.

## References

- Bergerud, C. (2018) *The top 10 challenges to effective cost controls*  
<https://www.pmi.org/learning/library/top-ten-challenges-effective-cost-controls-6049>
- Buzzell, E. (2017) *Effects of pricing strategies and product quality on private label and national brand performance*  
<https://www.sciencedirect.com/science/article/abs/pii/S0969698916000072>
- Devaus, D. (2022) *Research Guides*.  
<https://libguides.usc.edu/writingguide/researchdesigns#:~:text=The%20research%20design%20refers%20to,measurement%2C%20and%20analysis%20of%20data.>
- Drucker, P.(2022) *Why Quality Matters More Than Ever In Business*  
<https://www.gbcorporat.com/blog/why-quality-matters-more-than-ever-in-business>
- Editorial, T. (2021). *Understanding Product Quality: What Is It and Why It Matters*  
<https://www.indeed.com/career-advice/career-development/product-quality>
- Ezzikhe, Y. (2019) *OMAN REFRESHMENT COMPANY*.  
<https://www.pepsioman.com/ceo-message.php>



Fenton, R. (2019) *What Are The 7 Best Online Quality Management Training Courses?* <https://www.qualio.com/blog/quality-management-training-courses>

Geary, Z. (2019) *How to Balance Quality, Cost, and Schedule in Product Development* <https://www.jamasoftware.com/blog/how-to-balance-quality-cost-and-schedule-in-product-development/>

Hennie, E. (2022) *Data Collection Technique* <https://www.sciencedirect.com/topics/social-sciences/data-collection-technique>

McCombes, S. (2019) *Sampling Methods / Types and Techniques Explained.* <https://www.scribbr.com/methodology/sampling-methods/>

Schiffauerova, A. (2021) *Analyzing the cost of quality within a supply chain using system dynamics approach.* <https://www.tandfonline.com/doi/abs/10.1080/14783363.2017.1400376>

Thompson, K. (2018) *the effects of public health policies on health inequalities.* <https://link.springer.com/article/10.1186/s12889-018-5677-1>

Wood, Douglas. C. (2022) *Principles Of Quality Costs, Fourth Edition* <https://asq.org/quality-press/display-item?item=H1438>

