

Internship Abstract

Title: Analyzing suppliers and supply cost

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Purpose: To analyze the cost and quality of new dental equipment at Park Dental in Ridgefield, NJ.

Significance: Each year, the average dental office spends roughly \$100,000 on new dental equipment. During the Covid-19 pandemic dental services utilization decreased by 79% in April of 2020 (Gelburd 2020). Given the high yearly costs of sourcing new dental equipment and the decreased utilization of dental services, the dental industry was experiencing large losses of revenue. Price creep, misquotes, and overspending are just a few of the challenges that dental supply chain managers must overcome (Curemint 2021). Even before the pandemic it was difficult for dental offices to minimize treatment costs and now dental offices also have to worry about purchasing personal protective equipment on top of the already expensive dental equipment. Performing a cost analysis of dental and PPE equipment can help minimize the costs that my dental office is incurring and help find new methods to cut costs while also providing quality service. This will allow us to find alternative solutions to the problem instead of having our patients bear the burden of higher costs.

Method/Approach: A review by the administration department was done of our costs and revenue. The task was to create a spreadsheet of our current inventory and compare it to that of the spreadsheet of our 2019 inventory. The current task is to find ways to source cheaper equipment as well as find a better marketing strategy so that we can experience similar revenue to that in 2019, and decrease our equipment costs to around \$80,000. However, the quality of equipment will not be sacrificed for a lower price. A marketing strategy based around our quality patient care and protective equipment was also created to help bring in more patients and thus increase our profit without having to raise the cost of care.

Outcomes/Results: I compared the 2019 and 2022 data from our inventory spreadsheet. I found that the cost of equipment in 2019 was \$89,571 and the cost in 2022 was \$89,580. The costs for equipment for both years were similar, however, revenue was higher in 2019 because of the large influx of patients that the office was experiencing at that time. The office has found a way to consistently source new equipment so that the costs are relatively low. However, profit was largest in 2019 at \$761,899. The cost of protective equipment because of the Covid-19 pandemic was not factored into this spreadsheet. This further complicates the situation because more money must be spent on protective equipment for patients and caregivers and less patients are coming to the office to receive dental care. The use of dental services fell by over 70% during the months of March and April 2020. This has led me to believe that the office needs to further decrease the cost of sourcing new equipment, and or create a new marketing plan to attract more customers. Equipment costs in 2022 will be much higher than 2019 once PPE equipment is factored into the spreadsheet. Profit will also be much lower in 2022 because of the decrease in the number of patients as well as increased equipment costs. This leaves us with two options for increasing our profit: a new marketing plan, and or sourcing even cheaper equipment.

Evaluation/Conclusion: Given the large decrease of dental patients during the pandemic my main focus will be marketing to new potential patients. A separate spreadsheet for personal protective equipment will be made and analyzed so that our current inventory and supply chain can be understood. A larger influx of patients requires us to have a larger inventory of PPE equipment. Dental supplies and office expenses are

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the largest costs that the office is incurring. These costs can be minimized by sourcing gently used dental and office equipment that is still in good condition. This will not sacrifice the quality of the equipment but will cut costs by a considerable amount. An ongoing analysis of these changes will be done to see if they are effective in minimizing our costs and maximizing our profit.