

SYNTHESIS ASSIGNMENT

‘Ergonomic Chairs’

Group Members:

- **Ali Jodat (20K-0155)**
- **Basil Ali Khan (20K-0477)**
- **Abdul Ahad Shaikh (20K-0319)**
- **Muhammad Umer (20K-0225)**
- **Minhal Manjee (20K-0467)**

Teacher:

Ms. Sabeen Amjad

Purpose Statement

The purpose of Research Paper is to discuss the significance of Ergonomic chairs in the workplace and the minimum requirements that should be taken in to consideration to make chair Ergonomic. It also discusses the impact of using Ergonomic chairs on workers' health, productivity and cost savings.

Introduction

Report discusses the importance of Ergonomic chairs in the workplace. Ergonomic defined as scientific study of people working condition to improve effectiveness. Workers spent a long hours sitting so they need a comfortable chair that is comfortable for hours and can adjust their body and working style. This report include features of Ergonomic chairs, how experts work with designers to create seating solutions, how to improve employee engagement and dedication. It also emphasize the need for Ergonomic chairs to create comfortable and healthier workplace.

Problem Statement

Long and busy hours sitting in workplace can cause health problems and discomfort. Therefore, there is need for Ergonomic chairs that can provide proper back support, comfortability, adjustability, and customizable features that can take care of worker.

Considering company commitment, Ergonomic office chairs can improve employer's productivity, dedication and morale.

Importance of Ergonomic Chairs in the Workplace

The study of ergonomics is concerned with improving productivity by examining people and their working conditions. It is crucial to have a comfortable and ergonomic chair in the workplace, as individuals often spend prolonged periods seated. The chair should be design to provide comfort for extended periods and should be adjustable to fit the individual's body and working style. To classify as ergonomic, the chair must meet certain minimum requirements. When seated for extended periods, people tend to slouch forward, which can cause discomfort in the back [1]. Lumbar support in an office chair ensures that the small of the back is in contact with the chair, providing several benefits such as aligning the ears, shoulders, and pelvis and maintaining the lower spine's natural curvature. It is crucial to maintain a natural spine position that conforms to the chair when seated.

Criteria for Choosing an Ergonomic Chair

The design of "ergonomic" chairs meant to cater to a diverse range of people, but there is no assurance that they will be suitable for everyone. A chair could be too tall or have armrests too far apart for someone who is short and slim, and certain chairs may not be appropriate for every task or workstation layout. A chair is only considered ergonomic if it fits the size of the worker, their specific workstation, and the tasks that need to be perform. While finding the right chair can be challenging, there are some essential features to look for, such as adjustability of seat height and backrest, firm lumbar support, seat depth that accommodates both tall and short users, and a five-point base for stability, regardless of how the chair will be used [2].

Benefits of Ergonomic 24/7 Seating in the Workplace

Ergonomic 24/7 seating offers numerous benefits that improve worker health, productivity, and overall satisfaction in the workplace. According to a report, 74% of workers experience pain at their desks, which can result in decreased productivity, health issues, and sick days. Lower back pain is the second most common reason people miss work. Ergonomic chairs alleviate this common discomfort by conforming to each worker's specific shape, supporting the spine, and maintaining tissues and joints in a neutral position. Customizability is another significant benefit of ergonomic furniture. Providing employees with a comfortable and customized seating option can be challenging, especially when multiple employees use the same desk. Ergonomic chairs

solve this issue by offering adjustable seat height, armrests, and adequate seat width and depth for different body types.

By reducing work-related injuries and illnesses, ergonomics in the workplace can help to reduce business costs. In the United States alone, musculoskeletal disorders cost businesses up to \$50 billion annually, with worker's compensation costs ranging between \$15 and \$18 billion [4]. Switching to ergonomic office furniture can lead to reduced employee absenteeism, lower employee mistake rates, and improved engagement, job satisfaction, and morale, as well as demonstrate a company's commitment to safety [4].

Reason to use Ergonomic chair

Working at an office often entails spending a lot of time seated in an office chair, which places stress on the spinal structures. Hence, it's crucial to have an ergonomic office chair that supports the lower back, encourages excellent posture, and prevents the development or aggravation of back problems [5]. It also contributes in Reducing pain [6], by correcting their postures and form. Moreover, it also improves productivity [6] significantly as healthy workers will experience fewer distractions that prevent them from giving their best efforts and producing excellent work. Also, because ergonomic office furniture can lower the risk of work-related accidents, your employees will spend more time at the office and less time off due to illness or injury. And finally, it also enhances the worker's well being [6], considering both physical and mental well being, by providing ergonomic office furniture, through which the employers can show their staff that they care about their health and well-being. Employee health and workplace satisfaction are more prevalent among those who believe their employers appreciate and care about them.

Reviews of Ergonomic chairs

Many of the users of Ergonomic chairs have provided their reviews, for other employers. The Manager at ABS [7] believes that initially it looked like a lot of money, but later it turned out to be a good investment because their employees at work felt more relaxed and happy. The Manager at KCS [7] stated that the results were very good. Employees felt more valued at the time of installation of chairs, and loved working more for the company. Also, taking lesser breaks through out the day, improving their productivity.

Recommendation

Investing in ergonomic chairs is highly recommended for companies looking to promote employee health, well being, and productivity. These chairs offer customizability,

comfort, and support, and can help reduce the risk of musculoskeletal disorders. Choosing a suitable chair for each employee is crucial to ensure they are comfortable and supported.

Conclusion:

Overall, investing in ergonomic chairs is a wise decision for any company that values the health and well being of its employees, leading to increased job satisfaction and reduced absenteeism.