

AY 2023 - 2024

SEMESTER 3



# RESEARCH PAPER

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## OFFICE CHAIRS

**PRODUCT DESIGN**

Subject : Understanding Users

Facilitator : T V Prasad Chowdry

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# EXECUTIVE SUMMARY

In today's workplace, where design, well-being, and productivity all come together, the office chair is an essential piece of equipment. Our goal is to clarify the complex interplay among ergonomic design, aesthetic appeal, and user experience, with an emphasis on improving the workplace as a whole.

The way office furniture has changed throughout time, especially office chairs, is a reflection of how workplace culture is changing. Professionals spend a lot of time sitting down in today's knowledge-driven industry, which highlights how important it is to have seats that promote both comfort and health. The need for workplace furniture with ergonomic designs has increased as people become more conscious of the negative effects of sedentary lives on wellbeing.

The need for workplace furniture with ergonomic designs has increased as people become more conscious of the negative effects of sedentary lives on wellbeing. The purpose of this research is to provide a comprehensive analysis of office chairs, investigating their ergonomic design, impact on user health, and their role in enhancing workplace productivity.

To begin with, product research was undertaken. This helped us understand all the details of an office chair, the various categories of the product and so on. We also looked at the Market size of office chairs in India and its potential market. Then we learnt the major companies in the market and their marketing strategies.

Moreover, the future of the product is also included as a part of our research. Next, to understand previous studies on office chairs, we went through some of the research papers. As we came to the end of secondary research, we decided our research statement and research plan. Then we started with our next step, i.e. the Primary research. We decided to collect data by both face-to-face interviews and sending out a few Google forms. From the data that we collected, we came up with personas and user journey maps that represented our target audience. We also came up with various keywords through affinity mapping which helped us understand user needs and preferences better.

Key findings reveal that ergonomic office chairs significantly influence user comfort, productivity, and health. Features such as adjustable lumbar support, seat depth, armrests, and material quality play pivotal roles in providing adequate support and reducing the risks of prolonged sitting-related health issues. Additionally, the study underscores the correlation between proper chair design and increased workplace efficiency, emphasizing the need for organizations to prioritize ergonomic seating solutions.

In conclusion, this research not only underscores the importance of ergonomic office chairs in ensuring the health and well-being of employees but also emphasizes their pivotal role in optimizing productivity.

# PRODUCT RESEARCH

An office chair is a specially designed chair for use at a desk in offices. It's commonly used by professionals, executives, or anyone working at a desk. These chairs aim to offer comfort and support, especially for those who spend extended periods sitting at a desk or computer.



There are several varieties of office chairs on the market, each made to fulfil a unique set of needs and preferences.



- Task Chairs
- Executive Chairs
- Conference Chairs
- Mesh Chairs
- Ergonomic Chairs
- Drafting Chairs
- Reclining Chairs

# Office Chair : Categories



## Ergonomic Chairs:

These chairs focus on advanced ergonomic design to support proper posture and reduce strain. Often have adjustable lumbar support and customizable features.



## Executive Chairs:

Typically larger and more luxurious, these chairs are often used by managers and executives. They offer additional padding, higher quality materials.



## Guest Chairs:

Intended for visitors and guests, these chairs are often more compact and may have a simpler design than task chairs.



## Conference Chairs:

Designed for use in meeting rooms and conference areas, these chairs are often sleek and comfortable, with focus on professional appearance.

# MARKET SIZE AND POTENTIAL

- USD 13.4 billion in 2022 - Globally
- USD 17.5 billion in 2030 - Speculative
- USD 165 million in 2023 - India.

The market is expected to grow annually by 8.10% (CAGR 2023-2028).

The market size is estimated to grow at the rate of around 5.1% CAGR globally.

Since the pandemic, more people shifted to working from home due to which the demands for ergonomic chairs that are provided at office spaces, to be available at home increased. This demand is speculated to increase further in the coming years.

# MAJOR COMPANIES IN THE MARKET AND MARKET SHARE

## NILKAMAL



Nilkamal was launched under the able leadership of first-generation entrepreneurs - Mr. Vamanrai Parekh & Mr. Sharad Parekh is based in Mumbai, India.  
Market share - 32 %

Nilkamal is the world's largest manufacturer of moulded furniture and Asia's largest processor of plastic moulded products. The company offers wide range of furniture products, It is known for its high quality and innovative furniture products that are designed to suit the needs and style preferences of its customers.



- Cushioned back made of moulded foam for enhanced comfort
- Seat cushion made of moulded PU foam and hot-pressed plywood
- Push back mechanism allows for flexible movement and reclining
- Height adjustable feature ensures a customizable seating position



## GODREJ INTERIO

Godrej Interio is one of India's leading furniture and home decor brands founded in 1997. Godrej has a strong presence in India with over 200 exclusive stores and more than 2500 dealers. It offers a wide range of furniture products including beds, wardrobes, sofa sets, dining tables, and office furniture.

The company has strong focus on sustainability, with many of its products being made from eco-friendly materials such as engineering wood and recyclable plastic.

The company also has a large online presence, with its products available for purchase on e-commerce websites like Amazon and Flipkart. The company is known for its innovative and ergonomic designs, with products that are not only stylish but functional.

Market Share - 20%

## URBAN LADDER

Urban ladder is an furniture and decor retailer started in 2012 and headquartered in Bangalore, India. Urban Ladder operates 50 stores across India.

With over 5000 designs across 35 categories such as living, dining, bedroom, study, and decor, Urban Ladder was established as an online-first brand in 2012.

One of the unique furnitures of Urban Ladder is its custom-made furniture service. Customer can choose from a wide range of designs and materials and their furniture made. Urban Ladder is also committed to sustainability. The company uses eco-friendly materials and production processes and is constantly looking for ways to reduce its impact on environment.

Market Share - 35%



# IKEA INDIA

IKEA India is a subsidiary of the global furniture retailer, IKEA. It was established in India in 2018 with the opening of its first store in Hyderabad. There are about 5 stores across the country now.

IKEA offers a wide range of fine products including, living room linens, bedroom timbers, dining room and home office furniture.

One of the key strengths of IKEA is its ability to offer affordable, stylish furniture that is designed to meet the needs of the customers. IKEA specializes in low-priced goods, sold whenever possible in compact “flat-pack” form for in-home assembly by the customer. It uses eco friendly materials and production processes.



## HOW IS IKEA DIFFERENT FROM OTHER FURNITURE STORES?

- Low cost, high quality
- Flat-pack furniture
- Store layout
- Logistics
- Global reach



## HOW IS IKEA DIFFERENT FROM OTHER FURNITURE STORES?

- Low cost, High quality - The brand's signature style is low cost, self assembling furniture that does not skimp on the quality. Materials used in furniture are thoroughly described to the customers.
- Flat-pack furniture - When you buy something from IKEA, you receive it in “flat packing” i.e compactly packed in in a cuboidal corrugated box.
- Store layout - unlike other stores, where the furniture is organised product-wise, IKEA has furniture organised “room-wise”. You see mocks of what your ideal bedroom/kitchen might look like, which plays to your emotions and gives you a pleasure of discovery.
- Logistics - any furniture you buy from IKEA is shipped in a flat-pack. This makes it cheaper to transport and efficient to store products that are instantly ready to be shipped.
- Global reach - IKEA has a global presence in over 30 countries. Right from the innovative idea to have cafe in the store to the vibrant, colourful layout of the inventory.



# MARKET SEGMENTATION

**Segmentation based on 4 categories -**

## **Material**

- Mesh
- Leather
- Fabric
- Plastic

## **Product type**

- Ergonomic Chairs
- Executive Office Chairs
- Conference Chairs
- Computer Chairs and Others

## **Distribution Channel**

- Offline
- Online

## **Geography**

- North America (U.S., Canada, and Mexico)
- Europe (Germany, France, Italy, Spain, U.K., Russia, and Rest of Europe)
- Asia Pacific (China, India, Japan, Australia, and Rest of Asia Pacific)
- South America (Brazil, Argentina, and Rest of South America)
- Middle East & Africa (South Africa, UAE, and Rest of ME&A)

# MARKET SEGMENTATION

# MATERIAL



Fabric



Mesh



Leather



Conference Chair



Computer Chair



Vinyl



Executive  
chair



Ergonomic  
chair



# MARKET STRATEGIES OF COMPANIES

**The primary strategies are:**

- Sell niche ergonomic products that are hard to find in normal sales channels and usually take some education to understand and use.
- Educate our customers and nurture relationships with them by providing superior customer service.
- Sell locally and online to maximize two different sales channels.

## Marketing Strategy of Godrej Interio



- Segmenting, targeting and positioning
- Distribution
- Brand equity
- Competitive Analysis
- Customer Analysis
- High Quality Products
- Promotion
- Campaign

## Marketing Strategy of Nilkamal

- Segmentation
- Targeting
- Positioning
- Content Marketing Strategies
- Marketing Campaigns
- Social Media Marketing
- Influencer Marketing
- Mobile app



## Marketing Strategy of Urban ladder



- Customer segment
- Customer relationship
- Social Media Marketing
- Mobile app
- Campaign
- Channel
- Video on YouTube showing product and functionality
- Users stories post on the website
- Social Media

## Marketing Strategy of Ikea

- Product innovation,
- Improving the customer experience
- Digital marketing,
- Sustainability programs
- Clever packaging
- Vast User Insights
- Excellent In-store Experience
- Content Marketing



# THE FUTURE OF OFFICE CHAIR

## What will the furniture of the future be made from?

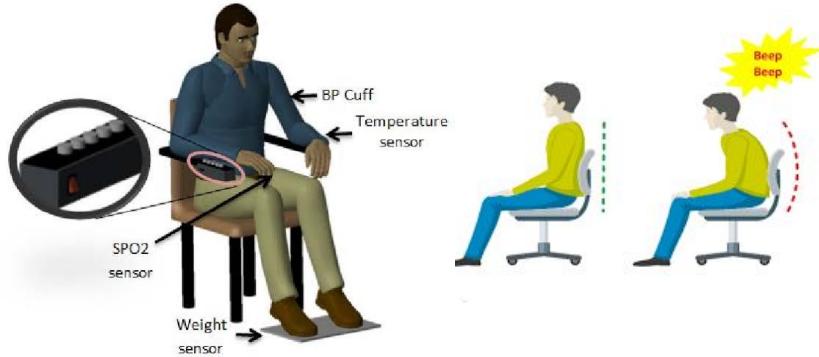
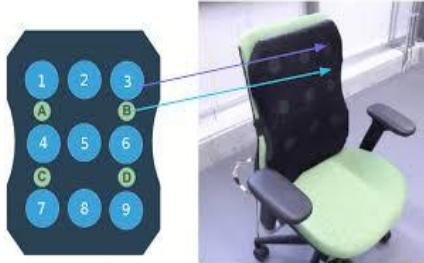


An armchair manufactured by Dutch company ZUIVER Group in 2019 is made up partly of coffee residue – using the waste produced by worldwide coffee consumption. Furniture brand Actiu recently launched a chair made out of 100% recycled fiberglass and polypropylene plastic – sourced from vegetable and fruit boxes from the Spanish Andalusia region.

## The Future of Office Seating

Intelligent office chairs remind users to drink water or take their medications on time and give instructions on how to sit properly if they are sitting for an extended period of time. If a person's posture is improper, Arduino IR sensors are employed to advise them.

These include a voice chip as well, so they can receive voice orders for the same actions as before.



# Desk chair of the future blends real and virtual worlds

The desk chair prototype has sensors on the seat, back, and arms. It also has a camera that tracks the chair's location, a moving projector that displays data on a surface, and a small built-in computer that handles all the data processing.

The use of technology can greatly increase the productivity and clarity of office tasks. When a user leans back to take a break from their monitor, it may suggest that they practise deep breathing. It may also show messages and alerts, project grids or schematics onto whiteboards during brainstorming sessions, or both.



# RESEARCH PAPER

## **Research Paper 1: A STUDY ON CONSUMER PURCHASING BEHAVIOUR IN FURNITURE INDUSTRY** Author-Piyush Shah, Anusha Ansari

### **Abstract / Conclusions**

- The study analyzed consumer purchasing behavior in the furniture industry using a random sample of 100 individuals aged 20-40
- A self-made survey was conducted using online surveys and cross-tabulation methods.
- Demographic details were analyzed, showing that most people prefer buying from trusted shops for furniture.
- Branded stores were also preferred for their guarantee on items.
- The study aims to improve consumer psychology and inform future research in the furniture industry.

### **Methods used:**

- For primary data collection - Interview and Survey
- For secondary data collection - Internet and Web journals

The journals used for the data collection

- Dr Varsha Jain, Sonal Pingle & Aarzoo Daswani (2012)
- Maria Carina Casas & Dr Justine Chinoperekweyi (2019)
- Amit Agarwal (2010)

## **Result findings:**

- The results show that people who have a family income of more than 40,000 spend on 15-20,000 on buying furniture from trusted known stores annually.
- 57% of the people mentioned that they prefer paying by their credit or debit cards
- It is a safe transaction followed by cash transactions, especially when they buy furniture from their local stores.
- They also mentioned that some store owners do not prefer credit card transactions
- therefore, people also prefer to buy from branded furniture stores which provide installation service too.

# **Research Paper 2: THE DETERMINANTS OF CONSUMER BEHAVIOURS IN THE FURNITURE MARKET**

Author - Patryk Zwierzynski

## **Abstract**

- The purchase of every good involves the decision to acquire it, the process depends on the type of goods to be bought.
- In the numerous criteria available, the most general classification of the economy divides it into products and services.
- Furniture, the subject of interest of this article, covers a large range of products. There are also different goods classified in the literature based on the following criteria:
  - Product lifespan,
  - Type of consumption
  - The lifespan and length of use of the product
  - User type
  - Consumers' purchasing habits and the degree of accessibility to a given product

## **Methods used:**

- For primary data collection - Interview and Survey
- For secondary data collection - Internet and Web journals

### The journals used for the data collection

- Dr Varsha Jain, Sonal Pingle & Aarzoo Daswani (2012)
- Maria Carina Casas & Dr Justine Chinoperekweyi (2019)
- Amit Agarwal (2010)

## **Conclusions:**

- Consumers are influenced by a variety of factors exerting varying degrees of power over the decision to purchase furniture.
- Many of these factors influence each other.
- The differences in consumer behaviours in the durable goods market are the result of both external and internal determinants.
- It is clear that the factors differ in terms of their influence on consumer behaviours in the durable and unsustainable goods market as well as in the trade market.
- While one may consider the most important factors in the decision to purchase those related to economic aspects, another may think that the most important factor may be the purchaser's age, which also influences the decision to make a purchase.

# RESEARCH STATEMENT

This research aims to investigate user preferences and experiences with office chairs, exploring aspects of comfort, adaptability, and durability. Through a combination of online forms and interviews, we seek to understand the diverse needs and challenges individuals face in different work environments.

## RESEARCH PLAN

The research plan involves conducting interviews in various settings, such as offices and home offices, to gather firsthand insights. Online forms will complement the qualitative data, allowing for a broader understanding of user demographics and preferences. Affinity mapping will be employed to analyze and organize the gathered information, extracting key themes. This comprehensive approach will guide the design and development of office chairs that prioritize user comfort, adaptability, and durability. The goal is to create ergonomic solutions that cater to the varied needs of individuals, ultimately enhancing the overall user experience with office seating.

# DESIGNING THE QUESTIONNAIRE

As a team, we decided to combine online forms and interviews in our questionnaire. We collaboratively designed it, outlining our goals and specific information needs. It guides both online forms and interviews for a thorough exploration. This approach optimizes efficacy, ensuring understanding of user preferences in a straightforward manner.

We started designing the questionnaire by listing out our goals and what we want to know from this questionnaire.

## 1. Target group

Our target group is someone who uses office chair for at least 3 days a week for more than 6 hours in a day of different age, gender and occupation.

## 2. What do we want to know using questionnaires?

- Comfort Preferences: what users find comfortable in chairs, including factors like cushioning, lumbar support, and seating position.
- Ergonomic Needs: ergonomic requirements, including adjustable features like armrests, height, and backrest
- Usage Patterns: how often users spend time sitting, the nature of their tasks while sitting, and the duration.

## **4. How will we ask the required Data?**

### **Comfort**

- How often do you adjust the settings of your office chair to optimize comfort?
- Are you interested in additional features such as built-in massage, heating, or wireless charging in an office chair?
- Do you currently experience any discomfort or pain while using your office chair?

### **Brand name**

- Do you now prefer any particular office chair brands or models, or have you ever had a good experience with one?
- Have you ever purchased a chair solely on the basis of its brand?

### **Budget**

- What is your preferred budget range when purchasing an office chair?
- Do you believe purchasing a quality office chair is an investment?

## **3. What DATA do you need to understand the mentioned issues?**

- The amount of time they use the chair
- Their comfort level using the chair
- Their thought process of choosing the chair
- Their preferred method of buying a chair
- Their budget
- Their income
- Family size
- Their living status

## **5. The flow of questions in your questionnaire**

Consent note (the information's intended use and justification)



Demographics



Close-ended Questions (yes or no questions)



Close-ended Questions (MCQ)



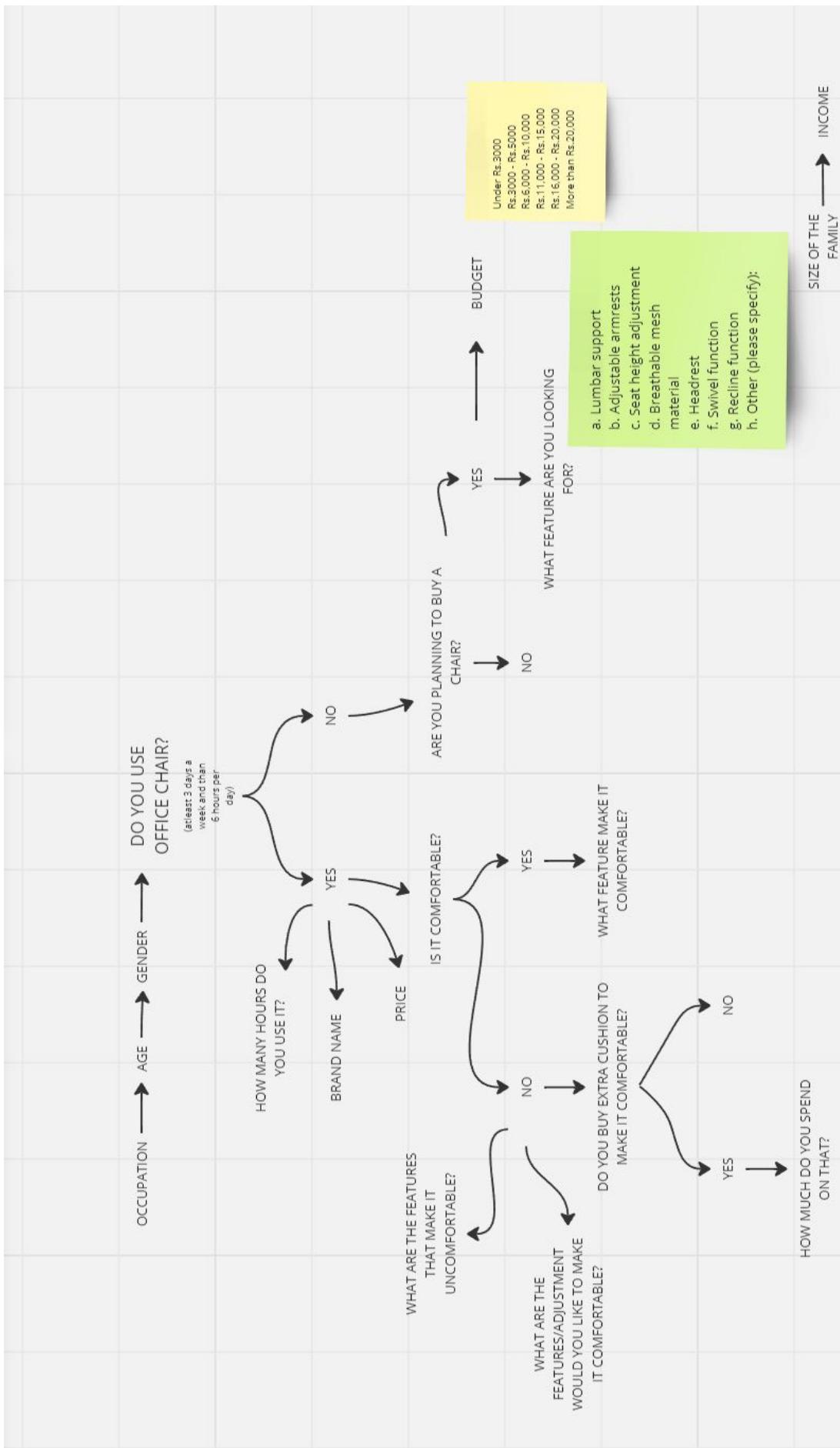
Optional questions



Open-ended questions



Thank you (for taking the time for answering)



# QUESTIONNAIRE

1. Age -

- 18 to 24 years
- 25 to 40 years
- 41 to 50 years
- 51 and more

2. Gender -

- Male
- Female
- Other

3. Occupation -

4. Per day, on an average, how many hours do you spend on office chair?

- Less than 3hr
- 3-5 hr
- 6-8 hr
- 9 -10 hr
- More than ten hr

5. Which brand of office chair are you currently using?

6. Choose the following features that are available in our chair?

- Lumbar support
- Adjustable armrests
- Seat height adjustment
- Breathable mesh material
- Headrest
- Swivel function
- Recline function
- Other (please specify):

7. Do you currently experience any discomfort or pain while using your office chair?

- Yes
- No
- Maybe

if yes, please specify

8. What are the key elements you look for in an office chair?

9. Do you purchase additional cushions to make your chair more comfortable?

- Yes
- No

10. What price range are you considering for your office chair purchase?

- Under Rs.3000
- Rs.3000 - Rs.5000
- Rs.6,000 - Rs.10,000
- Rs.11,000 - Rs.15,000
- Rs.16,000 - Rs.20,000
- More than Rs.20,000

11. Do you think that buying an office chair is a worthwhile investment?

- Yes
- No
- Maybe

12. Which purchasing method do you favour?

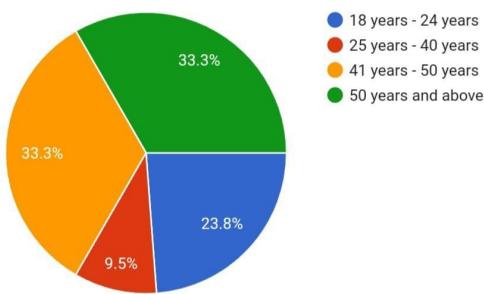
- Online
- Offline

13. Any additional comments or suggestions related to office chairs that you like to share?

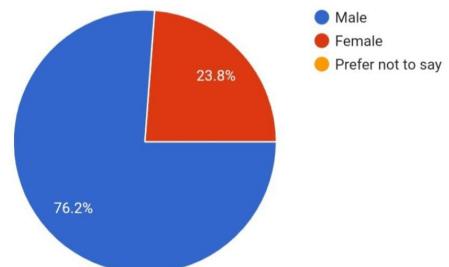
# SURVEY RESPONSE

Data of 22 responses from the google form

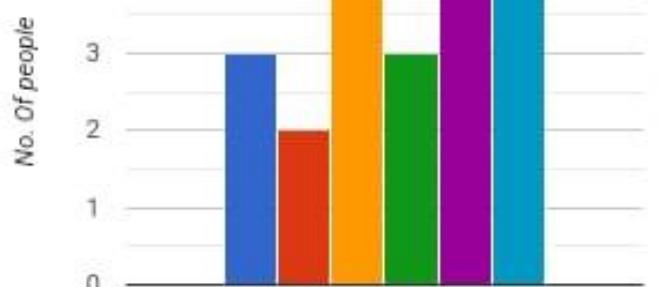
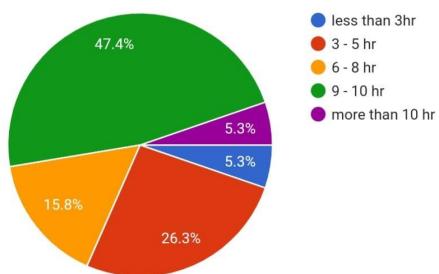
Age



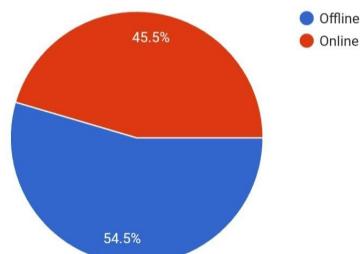
Gender



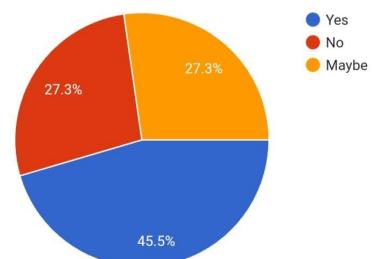
Per day, on an average, how many hours do you spend on office chair?



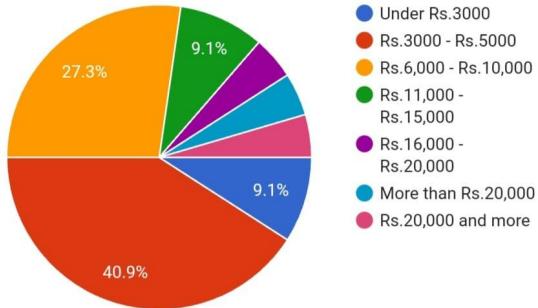
Which purchasing method do you favour?



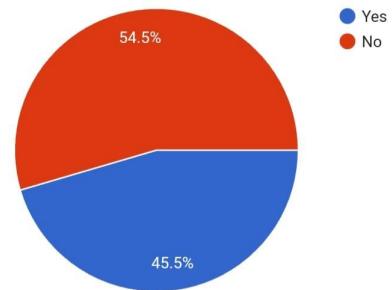
Do you currently experience any discomfort or pain while using your office chair?



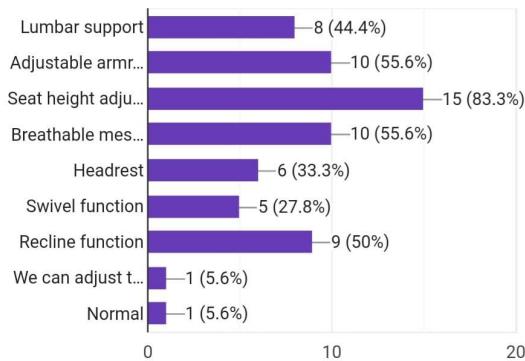
What price range are you considering for your office chair purchase?



Do you purchase additional cushions to make your chair more comfortable?



Choose the following features that are available in our chair?



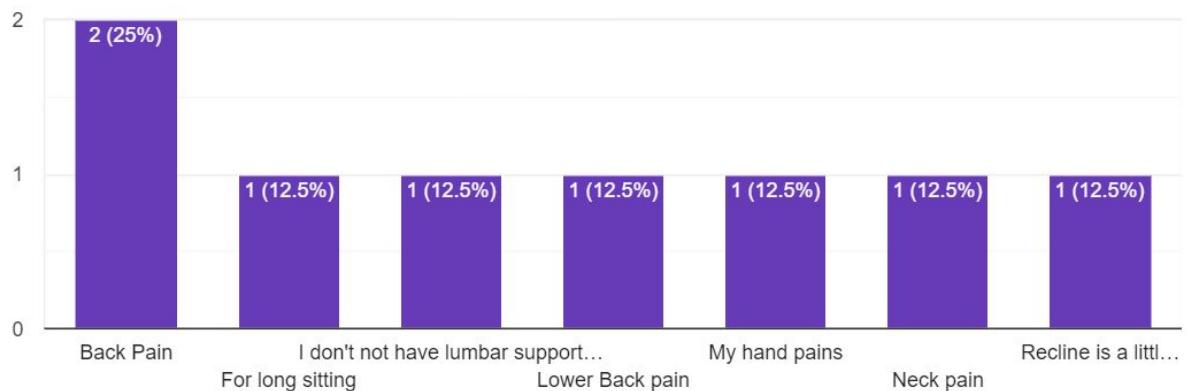
Which brand of office chair are you currently using?



if yes, please specify

Copy

8 responses



# INTERVIEWS

We set out to college receptions and staff rooms and Global Tech Village to chat with people about chairs. Our goal was simple: understand how people feel about the chairs they use. From hesitant responses to candid insights, we aimed to uncover what makes a chair comfortable or not, discovering unique experiences in both familiar and remote work settings. Our journey involved conversations, sharing stories from various individuals about their daily chair experiences.

To get started we first went to talk to people in our college we interviewed people who we thought who might use chair the most and they all told the tough chairs are comfortable they need to take breaks every half an hour.





- He was very hesitant to answer at first
- Then when we asked questions he started answering
- Told the chair is comfortable but he has take breaks and stretch because there is no proper neck support
- Sits there for almost 7 to 8 hours



- This interviewee works from home and only comes to office once every month
- He has a home office
- His chair isn't that comfortable
- Uses pillow for back support
- Takes constant break
- Spent 3500 on it
- Does not have neck support and almost fell from his chair while stretching



- We interviewed two people who were sitting together
- While one of them said his office chair is very comfortable
- the woman said she buys extra cushion for her back
- Costs around 3000 - 5000 rs



- This interviewee works from home and only comes to office once every two months
- She has a home office
- She does not remember the chair she has as it is very old
- She is very comfortable and her chair also provide proper back and neck support

# FINDINGS – SUMMARY

The findings from the interviews reveal a spectrum of chair experiences. Interviewee showcased initial hesitation but later exposed the need for proper neck support during long hours of sitting. In other interviews, a remote worker highlighted the discomfort of a less-than-ideal chair, resorting to pillows and breaks. Another interview presented a mixed scenario with one person finding comfort while another sought additional support. Last interview featured a positive experience with an old yet comfortable chair providing adequate back and neck support. Overall, the interviews underline the diverse challenges and preferences individuals face concerning chair comfort in both office and remote settings.

These findings show the importance of tailoring chair designs to meet varied needs, especially in accommodating extended periods of use. The interviews highlight a common theme of seeking proper neck and back support for enhanced comfort. Work from home workers, in particular, emphasize the need for adaptable and comfortable seating arrangements in home offices.

Additionally, the varied budgets spent on chairs, ranging from 2500 rupees to 5000, suggest a market demand for affordable yet ergonomic solutions. The mixed experiences shared indicate the significance of personal preferences, further emphasizing the need for customizable chair features.

# AFFINITY MAPPING

## RAW DATA(KEYWORDS)



miro

# Categorized

Brands	Emotional needs	Budget	Pain points	Hours spent	Mode of Purchasing
cellbell	Frustrating	price range 1000 - 3000	backpain (women especially)	use chair for 3 to 4 hours	online mode of purchase by asking others and reading reviews
godrej	Exhausting	price range 5000 - 8000	no neck support	10 to 12 hours	offline mode of purchase - to try which one's better
nilkamal	take constant breaks	price range 3000 - 5000 (if they could buy)	buy extra pillows for more back support	Online for offers	
local brand	concerned about durability		no proper arms support		

## Categorized in terms of different kind of users

who only work at office 5 to 6 hours	work from home (home office)	students
take constant breaks	take constant breaks	use chair for 3 to 4 hours
backpain	backpain	online mode of purchase by asking others and reading reviews
comfortable	offline mode of purchase	price range 1000 - 1000
buy extra pillows for more back support	10 to 12 hours	backpain
don't know the brand of chair (provided by office)	price range 5000 - 8000	no neck support
price range 3000 - 5000 (if they could buy)	concerned about durability	
wouldn't buy the new technology chairs	wouldn't buy the new technology chairs	
no neck support	no neck support	
		no proper arms support

Affinity mapping proved essential for our product as it facilitated the distillation and organization of diverse insights gathered from interviews into coherent themes and patterns. By identifying key words and grouping related concepts, we understood user needs and preferences for our chairs. This process helped us to differentiate prominent features such as comfort, adaptability, and durability—crucial elements that informed the design and development of our products.

# PERSONAS

User personas are semi-fictional representations of your target customers that are created based on the study and research. These meaningful archetypes are created to help a design or production team understand “who they are creating for and what are their preferences”. It gives you an insight about your target audience and their preferences.

Three personas were constructed to represent each participant in our study, each with a unique working environment. Three personas were created: one for the person who works 8-10 hours from home, another for the person who works 8-10 hours from the office, and a third for the student who works 3-4 hours from home part-time.

We started with bio and demographics, then listed down customer's motivations, goals and frustrations. Through this we learnt who exactly our uses were and how their needs could be fulfilled.



# Rajesh Kumar

SOFTWARE DEVELOPER

## BIO

Rajesh Kumar combines tradition with technology in his bustling city life. Rajesh works from home to take care of his elderly parents. In between taking care of his family, He finds peace in his regular practise of yoga. He is an amateur photographer on his restorative walks in nature. An office chair, to him, is more than just furniture, it's a sanctuary of peace in a chaotic world, reflecting his diverse passions and the essence of his vibrant life

**“ My office chair: My comfort at home ”**

### AGE

48 years old

### LOCATION

Mumbai

### FAMILY

Lives with his wife and elderly parents

### AVERAGE NO OF HOURS SPENT ON OFFICE CHAIR

#### PER DAY

10 Hours

### WORK ENVIRONMENT

Work from home

## FRUSTRATIONS:

- Discomfort:** Rajesh experiences discomfort, backaches, impacting his work efficiency and overall well-being.
- Poor Lumbar support:** Chairs with insufficient lumbar support cause discomfort in his lower back
- Low Quality:** Rajesh is frustrated with chairs that wear out quickly, necessitating frequent replacements and additional expenses.

## MOTIVATIONS

- Health & Wellness:** Rajesh is motivated to invest in a chair that promotes good posture and reduces the risk of long-term health issues.
- Increased Productivity:** A comfortable chair boosts his motivation to work efficiently and meet deadlines without discomfort, ensuring a more productive workday

## GOALS:

- Comfort and ergonomics:** Rajesh seeks an office chair that offers comfort and promotes good posture.
- Productivity:** He wants to increase his productivity and concentration by having an ergonomic chair.
- Durability:** Rajesh is looking for a chair that can withstand daily, ensuring a long lasting investment



# Ananya Sharma

IT PROFESSIONAL

## BIO

Ananya Sharma is an experienced IT professional who dedicates 8-10 hours daily to her ergonomic office chair, thoughtfully provided by her workplace. With a strong educational background in computer science and cybersecurity, she excels in solving complex technical challenges. Beyond her IT role, Ananya is passionate about staying updated with the latest tech trends and frequently mentors aspiring IT professionals. Her commitment to work-life balance and continuous learning make her a respected figure in the ever-evolving world of technology.

**“ Proper Back support would be really helpful, especially for females. ”**

### AGE

28 years old

### LOCATION

Bangalore

### FAMILY

Lives with her parents

AVERAGE NO OF HOURS  
SPENT ON OFFICE CHAIR

PER DAY

10 Hours

WORK ENVIRONMENT  
Work from Office

## FRUSTRATIONS:

- No back support
- Limited height adjustment support
- No hand rest
- Can't sit for longer time

## MOTIVATIONS

- Exchange deals while purchasing
- Comfortable chair to boost efficiency in work

## GOALS:

- Comfort
- Back rest
- Hand rest
- Proper height adjustment

## PREFERRED BRANDS FOR BUYING OFFICE CHAIR





**“ My office chair has become an essential tool in my daily routine which allows me to study or work for a longer time ”**

#### AGE

21 years old

#### LOCATION

Bangalore

#### FAMILY

Shifted to Bangalore for studies

#### AVERAGE NO OF HOURS SPENT ON OFFICE CHAIR

#### PER DAY

3-5 hours

#### WORK ENVIRONMENT

Work from home

# Dhyan Verma

STUDENT

## BIO

Dhyan, a 21-year-old who is committed to juggling his academic endeavours with part-time work and has a passion for learning, is an inspiring example of ambition and drive. Seated in his reliable office chair, he epitomises the qualities of a diligent student who never gives up on perfection.

## FRUSTRATIONS:

- Lack of back support
- limited help for height adjustment
- Absence of a hand rest
- Unable to stay seated for an extended period of time

## MOTIVATIONS

- A relaxed chair will increase productivity at work.
- Exchange options while making the purchase

## GOALS:

- Comfort
- Durability
- Lumbar support
- Proper height adjustment
- Headrest

## PREFERRED BRANDS FOR BUYING OFFICE CHAIR



# USER JOURNEY MAP



User journey mapping showcases the steps that a user takes in a process to accomplish a goal. User journey maps can uncover the limitations of your product.

Taking the time to map out how users interact with your product (and how they feel doing so) may reveal design flaws or new opportunities you hadn't considered. User journey Mapping is often viewed as one the core processes that helps organisations design and improve the user experience that is based on valuable insights.

# FINDINGS

- Almost everyone complained that there was no proper back and neck support often leading to back pain.
- People generally are willing to spend 3000 - 5000 on office chairs
- Many of them frequently took breaks since they couldn't sit continuously for a longer period of time due to lack of proper neck support.
- Almost all women were facing back pain due to absence of proper backrest and few of them even bought extra cushion to make it more comfortable.
- When asked, what do they think about the future smart chairs with projector and everything in it, they said they wouldn't buy them since it would make them very lazy, they wouldn't have to even get up since the chair would do everything for them.



# ACTIONABLE INSIGHTS

Following are the insights that can be looked upon while designing an office chair:

- ERGONOMIC DESIGN - Highlighting the importance of chairs that support good posture and comfort, reducing strain on the body during long work hours, should be the important thing to be considered.
- ADJUSTABILITY - Multiple adjustable features like seat height, armrests, lumbar support and reclining options should be available, enabling users to customise their seating position.
- MATERIAL & DURABILITY - Durable materials that ensure longevity, long term investment and easy-to-clean fabrics should be used.
- EXCHANGE OFFERS WHILE PURCHASING - Most of the customers expect exchange offers when they purchase an office chairs.

# CONCLUSION

In the realm of modern workplaces, the significance of office chairs cannot be overstated. This research has delved into the multifaceted aspects of office chair design, ergonomics, and their impact on employee health, well-being, and productivity.

It is evident from this study that ergonomic office chairs play a pivotal role in mitigating the risks associated with prolonged sitting, reducing musculoskeletal disorders, and enhancing user comfort.

Furthermore, the correlation between proper chair design and improved workplace productivity is evident.

Employees working in comfortable and supportive chairs display higher levels of focus, engagement, and efficiency, thereby underlining the economic benefits of investing in ergonomic seating solutions.

In conclusion, the findings of this research underscore the pivotal role that office chairs play in shaping the health, productivity, and environmental impact of modern workplaces. It is imperative for businesses to prioritize ergonomic design, invest in quality seating solutions, and embrace sustainable practices to foster healthier, more productive work environments while contributing to a more sustainable future.

# ANNEXURES

## RESPONSES:

### Person 1:

- **Age -** 18-24 years
- **Gender -** Female
- **Occupation -** Student
- **Per day, on an average, how many hours do you spend on office chair-** less than 3 hrs
- **Brand of your office chair -** Cellbell
- **Features that are available in your chair?**
- **Do you currently experience any discomfort or pain while using your office chair? Maybe**
- **What are the key elements you look for in an office chair? Comfort & Durability**
- **Do you purchase additional cushions to make your chair more comfortable? No**
- **What price range are you considering for your office chair purchase? 3000-5000 rs**
- **Do you think that buying an office chair is a worthwhile investment? Yes**
- **.Which purchasing method do you favour? Online**
- **Any additional comments-**

### Person 2:

- **Age -** 18-24 years
- **Gender -** Female
- **Occupation -** Student
- **Per day, on an average, how many hours do you spend on office chair-** 3-5 hrs
- **Brand of your office chair -** Nilkamal
- **Features that are available in our chair?**
- **Do you currently experience any discomfort or pain while using your office chair? Yes**
- **What are the key elements you look for in an office chair? Headrest. Lumbar support, height adjustment**
- **Do you purchase additional cushions to make your chair more comfortable? Yes**
- **What price range are you considering for your office chair purchase? Rs.3000-5000**
- **Do you think that buying an office chair is a worthwhile investment? Yes**
- **Which purchasing method do you favour? Online**
- **Any additional comments-**

### Person 3:

- **Age -** 41-50yrs
- **Gender -** Male
- **Occupation -** Service
- **Per day, on an average, how many hours do you spend on office chair-** 3-5 hrs
- **Brand of your office chair -** Local brand
- **Features that are available in our chair? Armrest, recline function, Breathable mesh material**
- **Do you currently experience any discomfort or pain while using your office chair? Maybe**
- **What are the key elements you look for in an office chair? Back support and headrest**
- **Do you purchase additional cushions to make your chair more comfortable? Yes**
- **What price range are you considering for your office chair purchase? Rs.3000-5000**
- **Do you think that buying an office chair is a worthwhile investment? Maybe**
- **Which purchasing method do you favour? Online**
- **Any additional comments-**

#### Person 4:

- **Age** - 41-50 yrs
- **Gender** - Male
- **Occupation** - Project Manager
- **Per day, on an average, how many hours do you spend on office chair-** 9-10 hrs
- **Brand of your office chair** - Surya
- **Features that are available in your chair?** Seat height adjustment.
- **Do you currently experience any discomfort or pain while using your office chair?** Yes, Hand pain
- **What are the key elements you look for in an office chair?** Proper hand and back rest
- **Do you purchase additional cushions to make your chair more comfortable?** No
- **What price range are you considering for your office chair purchase?** 3000-5000 rs
- **Do you think that buying an office chair is a worthwhile investment?** Yes
- **Which purchasing method do you favour?** Offline
- **Any additional comments-**

#### Person 5:

- **Age** -25-40 yrs
- **Gender** - Male
- **Occupation** - Receptionist
- **Per day, on an average, how many hours do you spend on office chair-** 9-10 hrs
- **Brand of your office chair** - Not known
- **Features that are available in our chair?** Basic features
- **Do you currently experience any discomfort or pain while using your office chair?** Yes, Back Pain
- **What are the key elements you look for in an office chair?** Proper neck support
- **Do you purchase additional cushions to make your chair more comfortable?** No
- **What price range are you considering for your office chair purchase?** Under Rs.3000
- **Do you think that buying an office chair is a worthwhile investment?** Maybe
- **Which purchasing method do you favour?** Offline
- **Any additional comments-**

#### Person 6:

- **Age** - 50yrs and above
- **Gender** - Male
- **Occupation** - IT
- **Per day, on an average, how many hours do you spend on office chair-** 9-10 hrs
- **Brand of your office chair** - Godrej
- **Features that are available in our chair?** Armrest, Lumbar support
- **Do you currently experience any discomfort or pain while using your office chair?** Yes
- **What are the key elements you look for in an office chair?** Neck support
- **Do you purchase additional cushions to make your chair more comfortable?** Yes, uses pillow
- **What price range are you considering for your office chair purchase?** Rs.6000-10000
- **Do you think that buying an office chair is a worthwhile investment?** Yes
- **Which purchasing method do you favour?** Online
- **Any additional comments-** My chair doesn't have proper neck support, I almost fell once while stretching

#### Person 7:

- **Age** - 50yrs and above
- **Gender** - Male
- **Occupation** - Engineer
- **Per day, on an average, how many hours do you spend on office chair-** 9-10 hrs
- **Brand of your office chair** - Don't remember
- **Features that are available in your chair?** Swivel function, seat height adjustment
- **Do you currently experience any discomfort or pain while using your office chair?** Maybe
- **What are the key elements you look for in an office chair?** Proper hand rest, lower back support, neck rest. The body should be intact for long hours and should not slide forward. Also need a good height adjustment
- **Do you purchase additional cushions to make your chair more comfortable?** Yes
- **What price range are you considering for your office chair purchase?** 6000-10000 Rs
- **Do you think that buying an office chair is a worthwhile investment?** Yes
- **Which purchasing method do you favour?** Offline
- **Any additional comments-** I purchased bought additional cushion for neck support and an extra seat cushion. Prefer extendable height adjustment (my office chair has very limited height adjustment support)

#### Person 8:

- **Age** -18-24 years
- **Gender** - Male
- **Occupation** - Developer
- **Per day, on an average, how many hours do you spend on office chair-** 6-8 hrs
- **Brand of your office chair** - Not sure
- **Features that are available in our chair?** Lumbar support, headrests, seat height adjustment, Breathable mesh material
- **Do you currently experience any discomfort or pain while using your office chair?** Yes, Recline is a little bit discomfort. It should also have levels to lock.
- **What are the key elements you look for in an office chair?** Comfort
- **Do you purchase additional cushions to make your chair more comfortable?** No
- **What price range are you considering for your office chair purchase?** Rs. 3000-5000
- **Do you think that buying an office chair is a worthwhile investment?** Yes
- **Which purchasing method do you favour?** Online
- **Any additional comments-**

#### Person 9:

- **Age** - 50yrs and above
- **Gender** - Male
- **Occupation** - Marketing
- **Per day, on an average, how many hours do you spend on office chair-** Less than 3hrs
- **Brand of your office chair** - Local
- **Features that are available in our chair?** All basic features
- **Do you currently experience any discomfort or pain while using your office chair?** No
- **What are the key elements you look for in an office chair?** Comfortability
- **Do you purchase additional cushions to make your chair more comfortable?** Yes
- **What price range are you considering for your office chair purchase?** Under Rs.3000
- **Do you think that buying an office chair is a worthwhile investment?** No
- **Which purchasing method do you favour?** Offline
- **Any additional comments-**

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