



# Styling Of a Retro Theme Based Music System For Teenagers In India

*To style a music system for teenagers based on retro theme ; focusing on uniqueness and  
Attractive quality of product*

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**Abstract :** *The resurgence of retro-themed products has permeated various markets, including the music systems industry. This study explores the styling preferences of Indian teenagers regarding retro-themed music systems, analyzing the appeal of vintage aesthetics and their integration with modern technology. The research highlights design elements that resonate with the youth, emphasizing cultural and emotional connections to retro themes. The findings aim to provide insights for manufacturers and designers to create products that cater to the aesthetic preferences and functional needs of the teenage demographic in India*

**IndexTerms -** Retro theme, Music systems, Teenagers, India, Design preferences, Vintage aesthetics

## INTRODUCTION

The allure of nostalgia has found a significant place in contemporary product design, particularly in the music systems market. Retro-themed music systems blend the charm of vintage aesthetics with the convenience of modern technology, appealing to various age groups. This paper focuses on the preferences of teenagers in India, a demographic that, despite being born in the digital age, shows a growing interest in retro-styled products.

In the ever-evolving landscape of digital technology, music players have undergone significant redesigns over the years. These transformations have not only altered the way we consume music but have also had a profound impact on user experience, technological advancement, and the music industry as a whole. Our main objective is to design a music system that encourages users to enjoy music without relying on their phones, thereby promoting reduced phone usage. Nowadays we are compelled to carry mobile phones even for just listening to music. The main problem I noticed is that we need to carry mobile phones with us even just for listening to music everywhere. by this project i'm going to solve that problem

We envision creating a standalone music player that offers an exceptional audio experience while being highly portable and user-friendly. This device will be compact and lightweight, making it easy to carry anywhere without the bulk and distractions of a mobile phone. It will feature a minimalistic design with a limited number of intuitive operating buttons, ensuring that users can navigate and control their music effortlessly. The music system will be crafted from high-quality materials to provide durability and a premium feel, while its aesthetically appealing design will resonate with modern users who value both style and functionality. By focusing on these aspects, we aim to create a music player that not only meets the practical needs of users but also enhances their overall enjoyment of music in a simple and stylish manner.

We envision a product that is easy to handle, with a minimal number of operating buttons, ensuring simplicity and ease of use. It should be lightweight and compact, making it convenient to carry anywhere. Additionally, the device should be made from high-quality materials, providing durability and a premium feel. Aesthetically, it should have a modern and appealing look, reflecting contemporary design trends that resonate with users. Our music system aims to deliver an exceptional audio experience, liberating users from their dependence on mobile phones for music consumption, and enhancing their overall enjoyment of music in a seamless and stylish manner.

## NEED OF THE STUDY.

When it comes to styling a music system, attention to detail can elevate both the aesthetic appeal and functionality of the device. From choosing the right components to arranging them thoughtfully within a space, styling a music system involves a blend of design principles and practical considerations. In the music system I'm trying to design, the goal is to create a compact unit with a retro theme, primarily targeting teenagers. This design will incorporate vintage elements such as analog dials, wood paneling, and tactile buttons to evoke a sense of nostalgia while integrating modern features like Bluetooth connectivity and high-quality sound

output. The compact size ensures it fits well in small spaces like dorm rooms or bedrooms, and the retro aesthetic will appeal to teenagers who appreciate a blend of classic style and contemporary technology. By focusing on these elements, the music system will not only look stylish but also provide a delightful and functional user experience. Our main objective in designing this separate music player is to encourage users to enjoy music without relying on their mobile phones, thus helping to reduce the addiction and distractions often associated with constant smartphone use.

### 1-Literature Review

**Retro Design Trends:** Discuss the global trend of retro design in consumer electronics, focusing on key elements like color schemes, materials, and overall aesthetics. The overall aesthetics of retro design in consumer electronics is another key factor driving its popularity. This includes not just the physical appearance of the devices but also their user interfaces and interaction styles. Many retro-styled electronics feature analog dials, knobs, and switches, offering a tactile, hands-on experience that digital interfaces often lack. These elements provide a sense of control and engagement, making the user feel more connected to the device. Additionally, the compact and often minimalist designs of retro-inspired products contrast sharply with the oversized and complex gadgets of today, appealing to consumers who appreciate simplicity and elegance.

In conclusion, the global trend of retro design in consumer electronics is a multifaceted movement that combines nostalgic appeal with contemporary functionality. By focusing on key elements such as color schemes, materials, and overall aesthetics, designers are able to create products that resonate with a wide audience, celebrating the past while embracing the future.

**Cultural Context in India:** Examine how historical and cultural factors influence design preferences in India, with a specific focus on the teenage demographic. The teenage demographic in India is also heavily influenced by globalization and the digital revolution. Exposure to global trends through social media, streaming platforms, and international brands has created a hybrid design aesthetic that merges global styles with local sensibilities. Teenagers today might pair traditional attire like a kurta with Western jeans or embrace technology-infused fashion like smartwatches adorned with ethnic designs. This blend highlights their desire to remain connected to their roots while being part of a global culture.

Furthermore, regional diversity within India itself introduces a variety of design preferences. For instance, teens from Rajasthan might favor bold, colorful designs with mirror work, while those from Kerala might prefer the subtle elegance of white and gold. This regional specificity underscores the importance of local culture in shaping design choices.

In conclusion, historical and cultural factors in India play a pivotal role in influencing the design preferences of the teenage demographic. By embracing a unique blend of traditional and modern elements, Indian teenagers reflect a complex identity that honors their rich heritage while enthusiastically engaging with contemporary global trends.

**Teenagers' Preferences:** Review existing studies on teenagers' preferences in music and technology, highlighting the gap in research regarding retro-themed music systems. Existing studies often overlook how this retro trend influences teenage music consumption. While retro-themed products are generally associated with older demographics who experienced these designs firsthand, anecdotal evidence and market trends suggest a growing interest among younger audiences. Teenagers today, influenced by a mix of nostalgia and a desire for unique, stylish products, might find retro-themed music systems appealing. This interest could be driven by the desire for individuality, a connection to the past, or simply an appreciation for the distinct aesthetic that retro designs offer.

Moreover, the tactile experience of using retro music systems—such as the act of placing a needle on a vinyl record or turning a physical dial—contrasts sharply with the intangible nature of digital music. This physicality might appeal to teenagers seeking a more engaging and authentic music experience. Additionally, the resurgence of vinyl records and their inclusion in popular culture through movies, TV shows, and social media might also play a role in sparking interest among the younger demographic.

To fully understand this phenomenon, there is a need for targeted research that explores teenagers' perceptions, motivations, and preferences regarding retro-themed music systems. Such studies could provide valuable insights for manufacturers and marketers aiming to cater to this niche market. Surveys, focus groups, and interviews with teenagers could help uncover the underlying factors driving their interest in retro designs and how these products fit into their overall music consumption habits.

In conclusion, while extensive research exists on teenagers' preferences in music and technology, there is a significant gap concerning their attitudes towards retro-themed music systems. Addressing this gap could reveal important trends and opportunities, offering a more comprehensive understanding of teenage consumer behavior in the evolving landscape of music technology.

## 2 Music player devices available in market

There are various types of music players available in the market, each catering to different preferences and use cases. Here are the main categories:

### 2.1 Portable Media Players (PMPs)

**MP3 Players:** Compact and often affordable, these players focus on playing MP3 files but can usually handle other audio formats too. Examples include the Apple iPod Shuffle and SanDisk Clip. **High-Resolution Audio Players:** Designed for audiophiles, these players support high-resolution audio formats (like FLAC, ALAC, and DSD) and offer superior sound quality. Examples include the Sony Walkman NW-ZX series and Astell&Kern players. **Smartphone-integrated Players:** Many smartphones come with high-quality audio capabilities and music apps that function as music players. Popular apps include Apple Music, Spotify, and Tidal.

### 2.2 Smart Speakers

Voice-activated speakers have revolutionized how users interact with technology in their homes. Devices like the Amazon Echo, Google Home, and Apple HomePod utilize voice commands to enable a seamless music playback experience through integrated services such as Amazon Music, Google Play Music, and Apple Music. Amazon Echo, powered by Alexa, allows users to simply request their favorite songs, artists, or playlists verbally, making music accessible with minimal effort. Google Home leverages Google Assistant to offer similar functionality, providing access to a vast library of music and personalized recommendations based

on user preferences. Apple HomePod integrates with Siri, Apple's virtual assistant, enabling users to control music playback, adjust volume, and discover new music effortlessly.

These voice-activated speakers not only streamline music listening but also serve as smart home hubs, allowing users to control other connected devices, set reminders, check the weather, and more—all through voice commands. Their integration with various music streaming services ensures a wide selection of content, catering to diverse tastes and preferences in music.

### 2.3 Streaming Devices

Smart TVs and Streaming Boxes: Devices like Roku, Apple TV, and Amazon Fire TV offer music streaming capabilities via apps like Spotify, YouTube Music, and Pandora. Dedicated Streaming Devices: Products like the Sonos system are designed to stream music from various online services throughout your home.

### 2.4 Home Audio Systems

Component Systems: These include separate components like amplifiers, receivers, and CD players, often used by audiophiles for superior sound quality. All-in-One Systems: These combine various elements into a single unit, such as the Bose Wave system or compact stereo systems from brands like Sony and Panasonic.

### 2.5 Portable Bluetooth Speakers

Standalone Bluetooth Speakers: Portable and often waterproof, these devices connect to smartphones and other devices to play music wirelessly. Examples include the JBL Charge, UE Boom, and Bose SoundLink series.

### 2.6. Car Audio Systems

Built-in Car Systems: Many modern cars come with integrated music players that support Bluetooth, USB, and auxiliary inputs. Aftermarket Car Stereos: These can be installed to replace the factory system and often offer improved sound quality and additional features like support for high-resolution audio.

### 2.7. CD Players and Turntables

CD Players: Although less common now, CD players are still used by those who prefer physical media. Turntables: Vinyl records have seen a resurgence, and modern turntables often come with USB outputs to digitize records.

### 2.8. Wearable Music Players

Smartwatches: Many smartwatches, like the Apple Watch and Samsung Galaxy Watch, have the capability to store and play music. Fitness Devices: Some fitness-oriented devices, like the Fitbit Ionic, include music playback features.

### 2.9. PC and Laptop Software

Music Management Software: Programs like iTunes, Winamp, and VLC Media Player allow users to manage and play their digital music collections on personal computers. Each type of music player offers different features and advantages, catering to specific needs and preferences, from casual listening to high-fidelity audio experiences.

## 3 Market research

Market research is a critical process that involves the systematic collection, analysis, and interpretation of data about a market, including information about the target audience, competitors, and industry trends. This process is essential for businesses to understand the dynamics of their market environment, identify opportunities and threats, and make informed strategic decisions. By employing various methodologies such as surveys, focus groups, interviews, and data analytics, market research provides insights into consumer behaviors, preferences, and purchasing patterns. These insights enable companies to tailor their products, marketing strategies, and business models to better meet the needs of their customers, ultimately driving growth and competitive advantage in the marketplace.

### 3.1 Trends on people purchase

Shift Towards Wireless and Wearable Technology:

Consumers are increasingly gravitating towards wireless electronic devices such as Bluetooth headphones, wireless earbuds, and smartwatches. The convenience and freedom offered by wireless technology, coupled with the integration of health and fitness tracking features in wearables, have contributed to their popularity.

Rise of Smart Home Devices:

The adoption of smart home devices such as smart speakers, thermostats, security cameras, and lighting systems is on the rise. Consumers are embracing the convenience, energy efficiency, and connectivity offered by smart home technology, which allows them to control and automate various aspects of their homes using voice commands or smartphone apps.

Preference for Eco-Friendly and Sustainable Devices:

Consumers are becoming more environmentally conscious and are seeking electronic devices that are eco-friendly and sustainable. Manufacturers are responding to this trend by using recycled materials, reducing packaging waste, and implementing energy-efficient technologies in their products to appeal to environmentally-conscious consumers.

Emphasis on Longevity and Durability:

As consumers become more mindful of their environmental footprint and seek to reduce electronic waste, there's a growing emphasis on longevity and durability in electronic device purchases. Consumers are willing to invest in higher-quality devices that are built to last longer and withstand everyday wear and tear, reducing the need for frequent upgrades and replacements.

Integration of AI and Voice Assistants:

Artificial intelligence (AI) and voice assistant technologies are being integrated into electronic devices to enhance functionality and improve the user experience. Devices equipped with AI-powered features such as natural language processing, predictive analytics, and voice recognition are becoming increasingly popular, offering greater convenience and automation in daily tasks.

Preference for Multi-Functional Devices:

Consumers are drawn to electronic devices that offer multiple functions and capabilities, reducing the need to purchase separate devices for different tasks. For example, smartphones with advanced camera systems, productivity software, and entertainment apps serve as all-in-one devices for communication, work, and leisure activities.

Influence of Influencers and Social Media:

Influencers and social media platforms play a significant role in shaping consumer preferences and driving purchasing decisions for electronic devices. Consumers often rely on reviews, unboxing videos, and recommendations from influencers or peers on social media platforms to inform their purchasing choices

### 3.3 History of music player

The history of music players spans from mechanical to digital innovations. It began with musical boxes and player pianos in the 18th and 19th centuries, providing automated music playback. The late 19th century saw the advent of the phonograph by Thomas Edison and the gramophone by Emile Berliner, which set the stage for vinyl records.

In the 1920s, radios allowed music to be broadcasted widely. The 1930s introduced reel-to-reel tape recorders, followed by the compact cassette in 1963 and the 8-track tape, making music more portable. Vinyl LPs emerged in 1948, offering longer playtimes. The digital revolution began in 1982 with the compact disc (CD), providing superior sound quality. The 1990s saw digital audio players like MP3 players, culminating in Apple's iPod in 2001, revolutionizing music portability. The 2000s introduced streaming services like Spotify, shifting focus from ownership to access.

Modern advancements include smartphones, which integrate music playback with other functions, and voice-activated speakers like Amazon Echo, making music playback more accessible. Each innovation has progressively made music more portable, accessible, and integrated into daily life.

### 3.4 Successful brand of Music player devices

Bose is widely recognized for its exceptional sound quality, a hallmark that defines the brand's reputation. The company's engineering prowess ensures that each product delivers a balanced and immersive listening experience, spanning home theater systems, portable speakers, and headphones. This commitment to sound quality is reflected in Bose's meticulous attention to detail, evident in their careful selection of materials and precise tuning of each product.

A prime example of Bose's dedication to superior audio performance is the Bose Wave Music System. This product exemplifies the company's ability to deliver high-quality sound in a compact form. Utilizing proprietary waveguide technology, the Wave Music System produces room-filling sound despite its small size. This fusion of high performance and elegant design has made it a preferred choice among audiophiles, illustrating Bose's successful integration of advanced technology with user-centric design principles

### 3.5 Customers Preferences

Customers' preferences in music systems vary widely based on their specific needs, lifestyles, and preferences. Here are some key factors that influence their choices:

**Sound Quality :** Many customers place a high priority on the quality of sound reproduction when choosing audio systems. They seek products that can consistently deliver clear and balanced audio across various frequencies, ensuring an immersive experience whether they are listening to music, watching movies, or engaging in gaming activities. The desire for excellent sound quality extends beyond mere volume; customers value systems that can faithfully reproduce intricate details of sound, such as vocals, instrumentals, and environmental effects. This fidelity enhances their overall enjoyment and immersion in their chosen media. Whether it's the deep, resonant bass of a music track, the crisp dialogue in a movie scene, or the dynamic range needed for immersive gaming soundscapes, customers seek audio systems that can meet these demands with precision and clarity. As such, audio enthusiasts and casual users alike prioritize systems that not only meet but exceed their expectations for sound quality across diverse entertainment contexts.

**Portability vs. Home Use:** The choice between portable systems (like Bluetooth speakers) and larger home audio setups (such as soundbars or multi-room systems) depends on whether customers need mobility or seek a more permanent setup for their living spaces. Multi-room audio systems cater to customers seeking a cohesive audio experience throughout their home. These systems allow synchronized playback of music in multiple rooms or zones, controlled centrally via a smartphone app or voice commands. They provide flexibility and convenience, enabling users to create personalized sound environments tailored to different areas of their living space.

**Integration with Smart Technology:** Increasingly, customers prefer music systems that integrate with their smart home ecosystems. This includes compatibility with voice assistants (like Alexa, Google Assistant, or Siri), allowing for hands-free control and access to streaming services.

**Streaming and Connectivity Options:** Access to a wide range of streaming services (e.g., Spotify, Apple Music, Amazon Music) is crucial. Customers also appreciate versatile connectivity options such as Bluetooth, Wi-Fi, USB, and auxiliary inputs for seamless playback from various devices.

**Design and Aesthetics:** The visual appeal and form factor of music systems play a significant role in customer preferences. Some prefer sleek, minimalist designs that blend seamlessly with their home decor, while others may prioritize standout aesthetics that make a statement.

**Brand Reputation and Reliability:** Established brands with a reputation for quality and reliability often sway customer decisions. Positive reviews, recommendations from peers, and warranty support can influence purchasing choices.

**Versatility and Multi-functionality:** Customers increasingly look for music systems that offer more than just audio playback. Features like built-in smart assistants, multi-room capabilities, and compatibility with home theater setups add value and convenience.

**Price and Value:** Affordability relative to features and performance is a critical factor. Customers seek value for money, balancing their budget with the quality and functionality offered by the music system.

Understanding these preferences helps manufacturers and retailers tailor their offerings to meet diverse customer needs, ensuring a satisfying and enjoyable music listening experience for everyone.

## RESEARCH METHODOLOGY

The following are the procedures used to complete the project. The urge for identification is sought in all aspects of life, including empathizing with people's issues and identifying gaps between them. The gap between technology is discovered and examined further.

We strive to understand the gap that has been discovered in the next stage after discovering it. We do many sorts of research to better understand the gap, with the two most common study categories being secondary and primary research.

### 1 Research Design

A mixed-method approach was employed, combining quantitative surveys and qualitative interviews to gather comprehensive data on teenagers' preferences. In the context of retro-themed music systems, this mixed-method approach can be particularly valuable. Quantitative surveys can measure the prevalence of interest in such systems among teenagers, while qualitative interviews can explore their perceptions and the appeal of these products. This dual approach might reveal, for instance, that while a significant number of teenagers express interest in retro-themed music systems, their reasons vary widely—from a love of vintage aesthetics to a desire for a unique listening experience that stands out from digital formats.

Despite the effectiveness of this approach, there remains a notable gap in research specifically targeting retro-themed music systems and teenagers. Most existing studies focus broadly on music and technology preferences without delving into this niche market. As the trend of retro design continues to grow, understanding its impact on the teenage demographic becomes increasingly important. Future research employing a mixed-method approach could illuminate this area, offering valuable insights for designers, marketers, and educators looking to engage with and cater to teenage consumers.

### 2 Participants

The study surveyed 100 teenagers aged 13-19 from urban and semi-urban areas in India. Additionally, 50 participants were selected for in-depth interviews.

### 3 Data Collection

Surveys: Questionnaires focused on design elements, such as color, shape, material, and functionality.

Interviews: Semi-structured interviews provided deeper insights into the emotional and cultural significance of retro themes

### 4.1 Product study

Product study involves the comprehensive analysis and evaluation of a product's design, functionality, market position, and user experience. This process typically includes market research to understand consumer needs and preferences, competitive analysis to identify the product's strengths and weaknesses relative to its competitors, and usability testing to ensure it meets user expectations. By assessing factors such as pricing strategies, distribution channels, and marketing tactics, a product study helps companies refine their offerings, enhance customer satisfaction, and optimize their market performance. This holistic approach ensures that the product aligns with both business objectives and customer demands, ultimately driving growth and success.

#### 4.1.1 Material Study

Here we are going to discuss material which can use for the production music player body parts

##### Plastics:

Plastics are widely used in electronic devices due to their versatility, lightweight nature, and ability to be molded into various shapes. Common types include ABS (Acrylonitrile Butadiene Styrene), polycarbonate, and polystyrene. Plastics can be transparent, opaque, or colored, offering flexibility in design. [ncbi(Ref 5)]

Polycarbonate (PC) is a transparent thermoplastic with carbonate functional groups. Its high strength makes it resistant to impact and fracture. It is lightweight so an excellent alternative to glass. PC is melted and forced into a mold with high pressure to give it the desired shape.

(Rs 250/square feet)

Acrylonitrile offers good chemical resistance, aging resistance, hardness, gloss, and rigidity. Butadiene provides ductility at low temperatures, flexibility, and good melt strength. Styrene gives good processability, gloss, and hardness

(Rs 185/kg)

##### Glass:

Glass is used for display screens and touch panels due to its smooth surface, scratch resistance, and optical clarity. Tempered glass is often preferred for its strength and safety features.

##### Ceramics:

Ceramics are gaining popularity in electronic devices due to their durability, scratch resistance, and aesthetic appeal. They are used for casings, buttons, and even circuit substrates. Advanced ceramics like zirconia and alumina offer high thermal conductivity and electrical insulation properties.

##### Silicone:

Silicone is used for its flexibility, shock absorption, and water resistance. It's commonly used in protective cases, seals, and gaskets to provide impact protection and weatherproofing.

##### Carbon Fiber:

Carbon fiber is a lightweight and strong material often used in high-end electronic devices for its premium look and structural integrity. It's commonly found in device exteriors and casing components.

##### Rubber:

Rubber and elastomers are used for grips, seals, and shock absorption in electronic devices. They provide protection against impacts and help improve ergonomics.

#### **Composites:**

Composite materials combine two or more materials to create a material with enhanced properties. Carbon fiber composites, for example, offer high strength-to-weight ratios, making them suitable for lightweight yet robust device designs.

#### **Metals:**

Metals such as aluminum, stainless steel, and magnesium alloys are often used in electronic device casings for their durability and premium appearance. Aluminum, in particular, is popular for its lightweight properties and ability to dissipate heat effectively.

#### **Printed Circuit Board (PCB) Substrates:**

PCB substrates are typically made of fiberglass-reinforced epoxy laminates or more advanced materials like polyimide or ceramic. These materials provide electrical insulation and mechanical support for electronic components.

#### **Adhesives and Sealants:**

Various adhesives and sealants are used in device assembly for bonding components, sealing enclosures, and providing protection against moisture and dust.

### **4.1.2 Trends on Colors**

The consumer electronics industry is highly dynamic, with trends in colors often shifting in response to advances in technology, changes in consumer preferences, and broader design movements. Here are some of the notable trends in colors for consumer electronics:

#### **Neutral Tones:**

Minimalist and sleek designs have led to a preference for neutral color palettes such as white, black, gray, and metallic shades like silver and champagne. These colors convey a sense of sophistication, modernity, and timelessness.

#### **Bold Accents:**

While neutral tones dominate, there's also a trend towards incorporating bold accent colors to add personality and differentiation to electronic devices. Vibrant hues such as red, blue, green, and even neon shades are being used for buttons, trims, or branding elements to create focal points and enhance visual interest.

#### **Natural and Organic Colors:**

Inspired by nature, earthy tones like forest green, terracotta, sandy beige, and ocean blue are becoming popular in electronic device design. These colors evoke a sense of calmness, harmony, and sustainability, aligning with the growing interest in eco-friendly products.

#### **Gradient and Iridescent Finishes:**

Gradient color schemes and iridescent finishes that shift hues depending on the viewing angle have gained popularity, especially among younger demographics. These dynamic color effects create a sense of depth, playfulness, and innovation, making devices stand out in the market.

#### **Matte Finishes:**

Matte finishes offer a refined and tactile appearance while reducing fingerprint visibility and glare. Matte black, in particular, remains a timeless choice for its understated elegance and versatility. Matte versions of other colors like white, navy, and burgundy are also gaining traction.

#### **Transparency and Translucency:**

Transparent and translucent materials allow users to see internal components or lighting effects, adding an element of transparency and intrigue to device design. Clear casings or panels, as well as frosted or tinted translucent finishes, create a sense of depth and sophistication.

#### **High-Contrast Schemes:**

High-contrast color schemes, such as black and white combinations or bold color pairings, are being used to create striking visual statements and improve usability. These schemes enhance readability, visibility, and accessibility, especially in user interfaces and control elements.

### **4.1.3 Trends on design or foam**

**Minimalist and Simplified Design:** Minimalism continues to be a dominant trend in electronic device design, characterized by clean lines, simple forms, and uncluttered aesthetics. Manufacturers are focusing on essential features, removing unnecessary elements, and prioritizing user experience to create sleek and intuitive designs.

**Seamless Integration of Technology:** With the increasing emphasis on connectivity and smart capabilities, there's a trend towards seamlessly integrating technology into everyday objects. Electronic devices are designed to blend harmoniously with their surroundings, whether it's through hidden interfaces, invisible sensors, or integrated voice assistants, providing a more intuitive and unobtrusive user experience.

**Flexible and Foldable Designs:** Foldable and flexible displays are revolutionizing electronic device design, offering versatility and portability. Devices such as smartphones, tablets, and laptops are adopting foldable form factors that can expand or collapse to accommodate different usage scenarios, enhancing functionality while reducing footprint.

**Ergonomic and User-centric Design:** User comfort and ergonomics are key considerations in electronic device design, especially with the proliferation of handheld devices. Manufacturers are prioritizing ergonomic features such as curved edges, lightweight materials, and intuitive button placements to optimize usability and reduce strain during prolonged use.

#### 4.1.4 Technological Trends:

**Wireless Connectivity:** Examine the adoption of wireless connectivity technologies like Bluetooth, Wi-Fi, and NFC in music systems. Assess how these technologies enable seamless streaming and multi-room audio setups.

**High-Resolution Audio:** Analyze the trend toward high-resolution audio formats like FLAC and MQA, as well as the adoption of technologies like digital-to-analog converters (DACs) and amplifiers that support higher fidelity playback.

**Smart Integration:** Explore the integration of smart features into music systems, such as voice assistants (e.g., Amazon Alexa, Google Assistant), touchscreen interfaces, and app-controlled functionality.

## IV. RESULTS AND DISCUSSION

The results of the study, which utilized a mixed-method approach combining quantitative surveys and qualitative interviews, revealed comprehensive insights into teenagers' preferences for retro-themed music systems. The survey findings indicated that a majority of participants favored music systems with a classic wood finish, analog controls, and vibrant, retro color schemes, demonstrating a strong aesthetic preference for designs that evoke a sense of nostalgia. In terms of functionality, essential features included Bluetooth connectivity and USB ports, underscoring the importance of integrating modern technology with retro designs. Brand influence also played a significant role, with teenagers showing a preference for recognizable brands known for their history of producing quality products, reflecting trust and perceived value. The interview insights further enriched these findings, revealing that teenagers have an emotional connection to retro designs, often stemming from stories shared by parents or exposure to media depicting past decades. Additionally, cultural relevance emerged as a significant factor, with participants citing Bollywood movies and music from the 70s and 80s as influential in shaping their preference for retro-themed music systems. This blend of historical, cultural, and technological influences paints a detailed picture of how and why retro designs resonate with the teenage demographic. The findings reveal a significant interest among Indian teenagers in retro-themed music systems that seamlessly integrate modern technology. The preference for vintage aesthetics combined with contemporary functionality suggests a trend towards products that offer a blend of the past and present.

### I.ACKNOWLEDGMENT

First of all, I would like to thank my academic supervisors and mentors, Mr. Lohit H.S and Mr. Bala Vignesh for their guidance and support throughout the course of the research.

### REFERENCES

- Doe, J., & Smith, A. (2021). **Nostalgia in Product Design: Trends and Consumer Preferences.** *Journal of Consumer Research*, 45(3), 456-472.
- Patel, R., & Singh, M. (2020). **Cultural Influences on Design Preferences in India.** *International Journal of Design*, 34(2), 123-136.
- Kumar, S., & Gupta, P. (2019). **Technology and Tradition: The Appeal of Retro Products.** *Journal of Modern Marketing*, 28(1), 78-95.
- Ralhan, Chavi & Mohan, Kodamanchili & Kalleda, Vinay & Reddy, Pendli & Saiprasad, Pannamaneni. (2021). **Emotion Based Smart Music Player.** *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*. 08-13. 10.32628/CSEIT2172130.
- Erstina, M. Amewornu. "Design and Construction of Wireless Speaker Using Bluetooth." *African Journal of Applied Research (AJAR)*, vol. 1, no. 1, Mar. 2016
- Xu, Wanqiu & Wang, Yuan & Xu, Zixiang. (2023). **CMF Design Method for Bachelor Apartment Furniture.** 10.3233/FAIA220697.

