Cluttered Wardrobes: Designing Gender-Responsive Storage Solutions for Male and Female Users

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Abstract

Cluttered wardrobes impact daily life efficiency and psychological well-being, but there is limited research on gender-specific storage needs. This study investigates the relationship between gender-responsive wardrobe design, storage practices, and the effects of clutter on daily life. A mixed-methods approach was employed, utilizing a survey N=100 and content analysis of IKEA's 2025 wardrobe catalogue. The survey revealed that 41.9% of respondents were unsatisfied with their current wardrobe organization, and 55.6% struggled to find suitable storage for specific clothing items. Respondents preferred light neutral color palettes (40.6%), minimalist design (42.9%), modular layouts (34.3%), and wooden materials (51%). Content analysis of IKEA's PAX system highlighted its modular design and adaptability but a lack of gender-specific organizational components. The psychological impact of cluttered wardrobes included a 27% reduction in life satisfaction, 23% decrease in stress, and 31% improvement in workplace concentration following simplification. Gender differences were noted in color preferences, with males choosing cooler tones and warmer hues for female, along with males preferring sturdier materials and females

favoring lighter options. This study highlights gender-responsive wardrobes that maintain aesthetic commonalities while incorporating distinct organizational systems. Male-oriented designs should feature fewer, larger compartments, increased hanging space, and simplified organization, whereas female-oriented designs should include numerous smaller compartments, varied hanging heights, and specialized accessory storage. Integrated lighting is recommended to enhance visibility and functionality. The findings highlight the need for adaptable, gender-responsive wardrobe designs that address psychological well-being and organizational effectiveness without explicit gender distinctions.

Introduction

In urban environments, cluttered wardrobes have become a significant problem affecting well-being and daily life efficiency. The stress of not finding items to wear, wasting time searching for lost items, and lacking clarity in personal style. Moreover, little attention has been paid to how the design of the wardrobe affects the behaviors and organizational needs of different genders. This study investigates the relationship between gender-specific wardrobe designs, storage practices, and the impact of wardrobe clutter on daily life efficiency. By examining these aspects, this study aims to understand the role of gender-specific design in improving wardrobe functionality and the practical implications of cluttered wardrobes. This study aims to answer the following research questions:

1. What role does wardrobe design play in facilitating or hindering an organization based on gender-specific needs?
2. To what extent does wardrobe clutter affect psychological well-being and decision-making processes in daily life?
3. How do gender-specific storage requirements influence the design of

wardrobes?

4. Which wardrobe design features or styles best suit males and females?

Problem Definition

Wardrobe storage presents a considerable challenge in modern living spaces; however, current wardrobe designs typically adopt a one-size-fits-all approach that neglects the potential of gender differences in clothing types, organizational preferences between genders, and the quantities of clothing. This oversight is problematic for several reasons.

1. Male and female consumers often have different clothing inventories and organizational needs that are not addressed in standard storage design.

2. Personalized storage systems are correlated with lower stress and improved well-being, indicating that gender-responsive solutions may enhance quality of life.

3. A better-tailored storage solution system could effectively enhance sustainability by reducing unnecessary consumption and extending product lifespan.

4. A substantial market potential for manufacturers who create storage solutions that are more attuned to gender-responsive

This study aims to address these gaps by examining how wardrobe storage can be enhanced through gender-responsive design, ultimately enhancing living environments while meeting consumer needs more effectively. This study examines how gender differences in clothing storage needs, usage patterns, and organizational preferences can inform the design of more efficient wardrobe solutions to develop a gender-responsive storage system that enhances functionality, sustainability, and user satisfaction for both male and female users.

Research Objectives

This study examines how gender differences in clothing storage needs, usage patterns, and organizational preferences can inform the design of more efficient wardrobe solutions to develop a gender-responsive storage system that enhances functionality, and user satisfaction for both male and female users.

1. Investigate gender-specific clothing storage needs and usage patterns.

2. Analyze organizational preferences between males and females for wardrobe storage.

3. Identify design features and styles that best accommodate gender-specific storage requirements.

4. Develop recommendations for gender-responsive wardrobe designs that enhance functionality, sustainability, and user satisfaction.

Research Domain and Limitation

The research domain is Interior Design and Gender Studies, with a focus on storage solutions and consumer behavior. However, this study is limited the variations in clothing storage practices and preferences. The study's findings may not be universally applicable due to variations in living spaces and housing designs across different regions.

Previous Studies

The phenomenon of cluttered wardrobes has drawn the attention of various fields, including psychology, sociology, and consumerism. Clutter is defined as an excess of items that disrupts the functionality and organization of a space, impacting individuals' daily functions and psychological well-being.

1. Life Satisfaction and Psychological Distress:

According to Roster et al. (2016), clutter in personal spaces (wardrobes) is linked to lower life satisfaction and higher psychological distress and affects movement and emotions. Their study of 1394 participants found that clutter triggers negative emotions, both cognitively and physically. One of the main reasons for decluttering wardrobes is the mental stress caused by too many possessions. Roster and Ferrari (2022) state that those who find it easier to declutter are those who live minimally because they have less to declutter. Carter (2019) states that the study found that the participants who simplified their wardrobes reduced their morning stress by 23% and improved their focus at work. Clutter cannot be ignored. Woodward (2021) says the moral judgment around clutter is a sign of laziness or personal failure. This can lead to cluttered spaces and make it harder for people to deal with their psychological and emotional experiences with their surroundings. Frost and Hristova (2011) examined the dimensions of hoarding behavior and found that societal pressure to have an organized space can make those who struggle with clutter feel inadequate or ashamed.

Based on the literature review, several research gaps related to cluttered wardrobes can be summarized as follows. Although Roster et al. (2016) established connections between clutter and psychological distress, limited research has focused on how these experiences differ between female and male users. Additionally, Sagaydevan et al. (2016) and Frost et al. (2013) did not discuss how (ADL-H) the activities of daily living in hoarding (ADL-H) and clutter image rating (CIR) scale evaluations inform gender-responsive design storage solutions. Carter's (2019) research was based on the benefit of wardrobe simplification, but there was an absence of comprehensive data comparing the organizational challenges faced by males and females.

Meanwhile, the literature review on cluttered wardrobes and their psychological effects uses a range of methodological approaches. Roster et al (2016) conducted a

comprehensive study with 1,394 participants to measure the relationship between cluttering and psychological distress using assessments, while, a clinical assessment tools (CIR) evaluated the clutter image rating scale, and (ADL-H) for the activities of daily living in hoarding scale Sagaydevan et al (2016) and Frost et al (2013). The findings from previous research papers revealed that the psychological impact of cluttered wardrobes reduces life satisfaction. Participants with cluttered wardrobes scored 27% lower on life satisfaction than those with organized wardrobes. Carter (2019) found a cognitive effect, where participants showed a 31% increase in task completion efficiency in workplace concentration following wardrobe simplification. While, Frost and Hristova (2011) identified feelings of inadequacy and shame as predominant emotional responses to clutter, with 68% of participants indicating that they experienced social anxiety linked to their disorganized spaces.

2. **Wardrobe Design and Customization:**

Wardrobe designs have evolved significantly, shifting from simple storage solutions to systems that reflect personal identities and functional needs. Wardrobe design plays an important role in sustainability and aesthetics. Recent research has highlighted the importance of emotional impressions and their relationship with wardrobe design. According to Torres and Vergara (2020), emotional bonding is achieved more effectively through usability and functionality than through customization. This research finding highlights the necessity for designers to consider how emotional responses interact with practical use, suggesting a balance between utilitarian function and aesthetic appeal. Chen and Xu's (2024) research explored how tactile sensations, like texture, can evoke emotional responses that resonate with users' identities, and they highlighted that the material choice and finish are paramount in the custom design of wardrobes. Choices between a sleek metal surface and a warm wooden finish cater to different preferences, fostering a deeper connection with wardrobe items. Additionally, Zhang and Chen (2024)

discussed how texture and color characteristics enhance visual perception and influence consumers' design choices and preferences. According to Martin (2022), minimalist wardrobes allow consumers to engage with their clothing in ways that enhance their self-identity while advocating for sustainability. Martin discusses the implications of the minimal fashion movement for reducing clothing consumption. This approach aligns closely with the research by Maldini and Stappers (2019), which stresses the necessity of addressing clothing consumption with innovative designs for less impact and to promote longevity; thus, wardrobes become not just a storage unit but a medium through which sustainable practices and personal identity can be explored.

This context requires designs that not only support storage but also support the dynamics of modern consumption, underscoring the necessity for adaptable and adjustable wardrobe solutions. Moreover, Cherrier and Ponnor (2010) noted that the sociocultural dynamics surrounding clothing consumption deeply influence the design of wardrobes; consumers in a 'throwaway society' frequently refresh their wardrobes, leading to a cycle of acquisition and disposal. Koo et al. (2013) emphasize the necessity for designs that can adapt and transform, thereby allowing consumers to navigate the challenges linked with overconsumption. Wang et al. (2020) explored the customization of wardrobes, particularly concerning user experience, and showed advancements in design practices, introducing a modular concept to wardrobe designs aimed at enhancing user satisfaction and engagement by incorporating feedback into the design process. This notion of user-centered design is closely connected to the functional and emotional requirements addressed earlier and aligns with designing products that resonate with consumers' needs while promoting sustainability.

Based on a literature review of wardrobe design, there is a key research gap in gender-specific emotional connections to wardrobe design. Torres and Vergara

(2020) discussed emotional bonding through functionality, but there has not been enough exploration of how these emotional connections might differ between males and females. Martin's (2022) research on minimalist wardrobe design and self-identity, the study did not examine whether the minimalist approaches affect gender differently or whether organizational preferences vary by gender.

Additionally, there is an absence of exploration of whether the principles of sustainable wardrobe design consider different consumption patterns among different genders (Maldini and Stappers, 2019). While Chen and Xu (2024) on material choices and tactile sensations did not investigate whether preferences for materials, textures, and finishes vary significantly between female and male users. As well as, Cherrier and Ponnor (2010) studied gender-specific disposal, organizational behaviors, and acquisition, which might inform optimal storage design solutions for different genders. Martin (2022) conducted a case study on minimalist wardrobe design, Cherrier and Ponnor (2010) conducted ethnographic research focused on observation and understanding cultural patterns, and Wang et al. (2020) used centered design workshops and feedback loops focused on gathering insights. The findings and results of previous research from the literature review on wardrobe design can be summarized in three key points: I) functionality creates a stronger emotional bond than mere customization. ii) The materials, texture, and color choices significantly influence the user's connection to wardrobes. iii) Minimal wardrobe design enhances self-identity while promoting sustainability.

Wardrobe design plays a crucial role in influencing gender experiences across multiple dimensions, including design style, material, and color preferences. These factors play a crucial role in societal perceptions of gender, which are critical in shaping identity and self-expression. The intersection of gender identity, social dynamics, and clothing is a rich area of inquiry, underscored by theoretical frameworks and empirical shards of evidence.

3. Color Preferences by Gender:

Research by Yue and Behe (2010) and Adjah et al. (2024) indicates that color preferences are notably gendered, influencing choices in clothes and emotional responses. For instance, research has shown that women generally gravitate toward warm colors such as beige and pink, while men gravitate toward cooler tones such as blue. According to Yue and Behe (2010), color preferences for gender can be traced back to both psychological and biological roots. Additionally, Wong and Hines (2015) noted that children's early color preferences reflect their patterns, with girls tending to prefer pink and boys preferring blue, indicating that the choice of color is ingrained from a young age. The psychological effect of colors influences gender experiences, color like blue is often associated with authority and calmness which is typically linked with masculinity, while pink may evoke a feeling of warmth and softness, aligning with feminine traits, highlighted by Costa et al. (2018). Moreover, Min (2015) indicated that the psychological and societal implications of these color preferences are important, as individuals may choose colors that conform to gender norms, showing deeper layers of social and identity understanding.

4. Material Choices and Design Style:

Regarding to the wardrobe material, Barry (2018) selecting materials for wardrobe design plays a crucial role in gender experiences, male tend to choose sturdier, structured materials that convey strength, while female incorporates more delicate and lighter materials. The implications of these choices extend beyond aesthetics, as they communicate a social message about gender expectations and roles. A study by Zhang and Chen (2024) indicates that personalized wardrobe design can empower individuals to express their identities. The adaptability of wardrobe designs to accommodate gender preferences, from color and materials, showcases a growing recognition of the need for representation in storage systems that suit female and male needs. Although Yue and Behe (2010) and Adjah et al. (2024) documented

color preferences among genders, limited research has focused on these preferences applied to practical wardrobe organization systems that enhance user satisfaction. Meanwhile, Wong and Hines (2015) investigated color preferences; however, their research did not examine how wardrobe design requirements from childhood through various life stages across gender. In addition, Costa et al. (2018) found a research gap in understanding whether wardrobe designs improve organizational effectiveness and psychological well-being or lack exploration of how cultural factors might impact gender-specific preferences and wardrobe design.

The findings on wardrobe design affecting gender experiences revealed consistent trends and patterns across various dimensions. Color preferences demonstrate clear gender distinctions, with females typically gravitating toward warm hues like beige and pink, while males gravitate toward cooler tones like blue. These inclinations manifest in early childhood and appear to be rooted in both biological and psychological factors. These color associations carry psychological significance, with blue connoting authority and calmness, and pink implying warmth and softness. Nevertheless, wardrobe design can empower and enhance individual identity expression, highlighting the increasing acknowledgment of storage systems that accommodate diverse gender-based preferences and needs.

The research methods in the existing literature on cluttered wardrobes and their psychological effects encompass diverse approaches. Roster et al. (2016) utilized a quantitative survey method across 1,394 participants to measure correlations between the relationship between cluttered wardrobes and psychological distress through standardized assessments. Torres and Vergara (2020) used a mixed-methods quantitative survey to compare customized and functional wardrobe designs with qualitative data. Chen and Xu (2024) utilized a quantitative survey rating the texture and material preferences of consumers, and qualitative responses. While Zhang and Chen (2024) along with Maldini and Stapper (2019) both studies involve

measurements and metrics. Regarding studies on wardrobe design affecting gender experiences, color preference research by Yue and Behe (2010) and Adjah et al. (2024) primarily used quantitative methods, which can be classified as analyzing consumer behavior and preferences using a survey, measuring statistical preferences across genders. Second, the research conducted by Min (2015), along with Barry (2018), primarily used the qualitative method, and this can be classified as both research papers focused on interpreting social meanings, identity formation, and gender expectations in material choices. Lastly, the mixed methods were used in research papers conducted by Wong and Hines (2015), Costa et al (2018), and Zhang and Chen (2024).

Research Methodology

This study employed a mixed-methods approach. Two primary research methods were used to explore cluttered wardrobes and design gender-responsive storage solutions for Male and Female users. A survey and content analysis were conducted. The survey method was used to gather quantitative data from participants regarding their gender identities, age groups, and primary occupations. This method enables the gathering of specific data on storage challenges, design preferences, and organizational behaviors directly from prospective users to validate that the target audience sees the topic as an interesting problem that needs to be solved. The survey offers a comprehensive approach that included structured demographic, Likert scale, and open-ended questions (Hussein & Rana, 2017). The survey captured measurable patterns and intricate personal experiences related to wardrobe storage solutions. Furthermore, content analysis was employed to complement the survey data to assess existing wardrobe designs, dimensions, materials, and storage solutions from the IKEA catalogue for 2024-25. The content analysis provided essential and valuable context for understanding existing wardrobe designs and identifying gaps in the gender-responsive design approach. These research methods create a comprehensive

foundation for developing storage solutions that effectively meet the needs of both male and female users while acknowledging their personal preferences.

Applying the Proposed Approach

The first method used in this study was a survey. It was conducted online via Google Forms. The survey was conducted to determine "how gender influences wardrobe organization needs and preferences to develop more effective and responsive storage solutions for both male and female users." This was done ethically because it was sent through an anonymous channel. It included an introduction explaining who the researchers were and what the project was. Participants were told it was voluntary, there were no known risks for participating, and they would be kept anonymous. The survey yielded 116 responses. However, 16 of these responses were found to be incomplete and were consequently removed, leaving 100 valid responses in the final sample. A pilot study was conducted. The results of the pilot study included a total of 30 participants. The participants were divided into three groups: academic faculty, students, and professional industry representatives. Among the respondents, 15 were faculty members, 10 were students, and 5 were industry professionals. All comments were addressed in the survey. Due to the exploratory nature of the research, which aims to understand gender-specific preferences and challenges in wardrobe storage solutions, the pilot study served as an essential tool to refine the survey questions, identify potential biases, and ensure clarity in the instrument used.

Method One: Results and Discussion:

The demographic questions showed that 59% of respondents were female, while 41% of the respondents were male. A significant portion of the respondents fell within the age of 18-24 and 25-34, with the most common professions being students and office/corporate workers. Among the 100 valid responses, 41.9% of the participants expressed dissatisfaction with their current wardrobe organization system. This result suggests a favorable outlook for adopting an innovative solution. Integrating

gender-responsive design into product development is recommended to address the identified challenges, as illustrated in Table 1.

Table 1: Perceptions on Wardrobe Organization and Storage Design (Valid N = 100)

Survey Question	Response Option	Frequency (n)	Percentage (%)
Satisfactory of current wardrobe organization system	Agree (somewhat satisfactory)	38	38.0%
	Disagree (not satisfactory)	42	41.9%
	Neutral / Other	20	20.1%
Struggling to find adequate storage space for specific clothing items?	Yes	56	55.6%
	No	18	18.2%
	Undecided	26	26.3%
Current wardrobe's design meets your specific needs	Disagree / Strongly Disagree	38	38.0%
	Agree / Strongly Agree	36	36.0%
	Neutral	26	26.0%

The last two Likert scale questions showed that 43.6% of respondents indicated that they spent excessive time locating items, reinforcing the need for time-efficient wardrobe systems. Nearly half (48.5%) of the respondents valued customizable storage, suggesting strong support for adaptive solutions that evolve with changing user needs, as illustrated in Table 2.

Table 2: Respondents' Time Management and Preferences for Customizable Storage Solutions (Valid N = 100)

Survey Question	Response Option	Frequency (n)	Percentage (%)
Time spent searching for items in your wardrobe each week	Strongly Agree / Agree	44	43.6%
	Strongly Disagree / Disagree	35	34.7%
	Neutral	22	21.8%
The importance of customizable storage solutions	Very Important / Extremely Important	49	48.5%
	Slightly Important	18	17.8%
	Not Important	10	9.9%
	Neutral / Other	23	23.0%

The final part of the survey consisted of open-ended questions aimed at gathering in depth qualitative insights into participants' design preferences and ideal storage solutions. The first open-ended question asked, "What color scheme would they prefer for their ideal wardrobe storage system?" Respondents were presented with multiple images to choose from. The answers were quantified, and the predominant portion of the respondents chose "Bright Toned Neutral color palettes" with the

percentage of 40.6%, followed it the "Warm Toned Neutral color palettes" with 36.6% of the answers, and lastly the "Dark color palettes" was chosen by 15.8% of the respondents. This result shows that the target audience prefers bright-toned neutral colors over warm-toned neutral colors. These findings should guide the development of gender-responsive storage solutions that incorporate neutral color schemes with sufficient brightness to enhance the visibility of stored items. Potentially include a customizable accent feature to accommodate the smaller percentage that favors dark-toned palettes.

The second question asked about "which aesthetic or style for wardrobe do the respondents prefer?" The participants were given three pictures to choose from. The respondents who chose "minimal style" as their desired wardrobe style had a percentage of 42.9%, the respondents who chose "industrial style" had a rate of 38%, and lastly, the "Traditional style" accounted for 17.3%. This finding indicates that gender-responsive storage solutions should prioritize sleek, clean outlines, functional features, and uncluttered designs, while potentially integrating industrial accents such as metallic fittings or exposed hardware, with features of traditional styling elements taking a secondary role or being available as customizable choices for the small segment of users who prefer vintage aesthetics.

The third question asked the respondents to select one option out of four of the "shape or configuration of a wardrobe that would best accommodate their specific clothing collection and usage patterns." The respondents who chose "Modular units" had the highest percentage of 34.3%, the respondents who chose "L shape" came as the second highest percentage of 27.3%, the third highest response was the "Wide and shallow" with 21.2% of the responses, making the "Tall and narrow" the least selected option with a percentage of 17.2%. These findings indicate that effective wardrobe solutions should incorporate customizable components that can be

rearranged to fit varied clothing collections and spatial constraints across different user needs.

Lastly, the fourth question regarding material preferences asked the respondents, "Which materials would they prefer for their ideal wardrobe construction?". They were given four options and could only select one of them. An overwhelming majority of respondents selected "Wood" as their material of choice for wardrobe construction, with a percentage of 51%, demonstrating its enduring appeal for storage solutions and furniture. A significant portion favored "two materials or more" at 39.2%, suggesting interest in a blended design approach. Lastly, only a few respondents selected "Glass" and the percentage was 5.9%, while the rest selected "Metal" (3.9 %). As standalone materials, they should be used as accent elements rather than as the main construction components. This research on gender-responsive wardrobe storage solutions identified a substantial psychological impact of cluttered environments, with disorganization reducing life satisfaction by 27%, while a simplification approach decreased morning stress by 23% and enhanced workplace concentration by 31%. A survey of 100 participants revealed considerable dissatisfaction with current storage solutions, with 41.9% expressing dissatisfaction and 55.6% struggling to find adequate space for clothing items. A significant majority of respondents opted for bright-toned neutral color palettes (40.6%), minimalistic design aesthetics (42.9%), modular layouts (34.3%), and wood structures (51%).

These findings address the research gap in gender-specific organizational needs and provide a foundation for designing storage solutions that enhance organizational effectiveness and psychological well-being for both male and female users by incorporating adaptable and customizable elements that respond to different gender preferences while maintaining functional integrity.

The preference for modularity particularly supports gender-responsive design by enabling customization to accommodate different organizational patterns between male and female users. Importantly, these modular components should be designed differently for each gender to suit their specific needs, with male-oriented modules potentially featuring fewer but larger compartments for bulkier items, whereas female-oriented modules might include more numerous smaller compartments for accessories and varied garment types. Rather than creating explicitly gendered wardrobes, designers should focus on adaptable systems with core elements that satisfy common preferences while incorporating sufficient flexibility to address diverse needs across the gender spectrum. This approach acknowledges both shared aesthetic preferences and gender-specific organizational requirements, potentially enhancing psychological well-being and functional effectiveness.

Method Two: Results and Discussion:

Content analysis was utilized to examine and interpret visual content to identify patterns, themes, and meanings that help deepen understanding of the topic (Lee et al., 2021), (Brown et al., 2016), (Dong et al., 2019), (Ledin & Machin, 2017), (Bardey et al., 2021). It was conducted to assess existing wardrobe designs, dimensions, materials, and storage solutions from the IKEA catalogue, which can be found online. IKEA provides a diverse range of wardrobe solutions predominantly finished in white to accommodate both male and female users across various style preferences. The 'PAX' system serves as its most prominent customizable storage line. The PAX system is characterized by the following features:

- A modular design allows customers to create personalized configurations.
- Various frame sizes with different heights, widths, and depths to fit diverse spaces.
- Extensive interior fittings, including drawers, shelves, hanging rails, shoe racks, and specialized organizers.

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- The ability to design your combination using IKEA's planning tool.

Table 3 shows that the PAX system is notable for its adaptability, which makes it popular for people with challenging spaces and storage needs. This system features multiple frame heights (201 cm and 236 cm) being standard, depths (25 cm, 58 cm, or 60 cm), and widths (50 cm, 75 cm, or 100 cm), allowing flexible configurations. IKEA wardrobes typically use particleboard, featuring a range of finishes, including white, black-brown, and wood veneer alternatives, such as birch and oak. Their storage solutions include a variety of organizational elements, such as shelving units, hanging rails at different heights, shoe racks, drawers of various depths, trouser hangers, and specialized accessory designs for accessories and small items (IKEA, 2025).

Table 3: Analysis of IKEA Wardrobe Models by Design Features, Dimensions, and Gender-Responsive Storage Capability (Valid Sample of 12 Models)

Model Name	Dimensions (W×D×H cm)	Door Type / No.	Frame Materials	Door Materials	Color Scheme	Design Approach	Accommodates Gender-Specific Collections
PAX/GRIMO	250×60×236	4 Hinged	Fibreboard, Paper foil	Fibreboard, Paper foil, Plastic edging	White frame, grey-green doors	High capacity, full-length	Yes, it supports long garments and baskets
PAX/FORSAND	150×60×236	3 Hinged	Fibreboard, Paper foil	Particleboard, Fibreboard, Acrylic paint	White frame and doors	Compact, standard layout	Limited, mostly standard clothing items
PAX/ÅHEIM	150×60×201	3 Hinged	Fibreboard, Paper foil	Glass, Plastic foil (mirror)	White frame	Integrated mirror, compact	Partial, it lacks pull-out or baskets
PAX/KAMMART RP/GRIMO	150×60×236	3 Hinged	Fibreboard, Paper foil	Fibreboard, Paper foil, Glass	White frame, grey-green doors	Functional, visual access	Yes, suits accessories & shoes
PLATSA	80×57×191	2 Hinged	Mixed core + recycled honeycomb	Particleboard, Paper foil	White frame	Eco-friendly, narrow layout	Minimal, small size limits storage

PAX/GULLABERG	200×60×201	4 Hinged	Fibreboard, Paper foil	Fibreboard, Acrylic paint	White frame and doors	Balanced, modular build	Yes. suits diverse clothing sets
PAX/BERGSBO	150×60×201	3 Hinged	Fibreboard, Paper foil	Tempered glass, Glass enamel	White frame, frosted glass doors	Elegant, semi-transparent	Yes, good for formalwear display
PAX/LINNABERG/ÅHEIM	150×58×236	3 Hinged	Fibreboard, Paper foil	Mirror, Recycled core	White frame, white patterned	Visual variety, tall profile	Yes, long-hanging & visual styling
PAX/HASVIK	200×66×236	2 Sliding	Fibreboard, Paper foil	ABS plastic, Acrylic paint	Grey-beige	Sliding for space-saving	Yes, deeper depth suits layering items
PAX/MISTUDDEN	150×60×201	3 Hinged	Fibreboard, Paper foil	Mixed board + acrylic	White/Grey patterned	Decorative finish	Partial, modest adaptability
PAX/MEHAMN/AULI	200×66×201	2 Sliding	Fibreboard, Paper foil	Fibreboard, Glass, Plastic foil	White frame, light green glass	Mirror door, flexible access	Yes, adaptable and elegant
PAX/ÅHEIM (Shelving)	50×38×236	1 Hinged	Fibreboard, Paper foil	Mirror	White frame	Narrow shelving + mirror	Limited, accessory use only

The analysis of IKEA's wardrobe models reveals a range of storage solutions catering to different spatial needs and user preferences. The dimensions and door mechanisms cater to gender-specific clothing requirements. For example, the PAX/GRIMO and PAX/HASVIK models offer average depth and height, making them suitable for hanging long garments and organizing shoes and accessories. Meanwhile, models such as PLATSA, which are compact and eco-friendly, offer limited internal flexibility and are less suited for users with complex wardrobe needs. Wardrop that integrates mirrors or sliding doors, such as PAX/MEHAMN/AULI and PAX/ÅHEIM, enhances usability in shared or compact spaces. Models with visual transparency, such as PAX/BERGSBO, balance functionality, and visual appeal, which may influence user satisfaction based on their lifestyle. Overall, the data support the premise that modular, customizable, and gender-responsive wardrobe systems are essential for accommodating a wide range of user needs, especially in shared or gender-diverse households.

The examination of IKEA's catalogue reveals a deliberate strategy in wardrobe design centered on the PAX system, which features white finishes to appeal universally across genders and style preferences. This modular system offers personalization options through varied dimensions (heights of 201 cm and 236 cm, depths ranging from 25-60 cm, and widths from 50-100 cm) along with diverse organizational accessories. While IKEA provides adaptability through particleboard materials available in various options (white, black-brown, and wood veneers), its one-size-fits-all approach to internal components may not fully address gender-specific organizational needs. This analysis indicates that although current market solutions excel in aesthetic neutrality and modular adaptation, there remains an opportunity to develop more gender-responsive internal organizational frameworks that effectively address the storage requirements of male and female users of these devices.

Conclusion

The psychological impact of a cluttered wardrobe reduces life satisfaction by 27% and amplifies distress, likely experienced differently among genders; however, this dimension remains unexamined. The documented benefits of simplifying wardrobes (23% reduction in morning stress and 31% enhancement in workplace concentration) might differ between males and females due to fundamental differences in clothing collections and organizational preferences. Although research indicates gender distinctions in color preferences (males toward cooler hues, females toward warmer hues) and material preferences (studier for masculine expression and lighter for feminine), these cannot be universally applied as they interact with individual traits and cultural contexts. These preferences are rooted in early childhood and influenced by both biological and psychological factors, suggesting deeply ingrained patterns that storage design should effectively address. The research gap regarding gender-specific organizational behaviors is particularly significant; whether male and female

users benefit from fundamentally different organizational structures or merely aesthetic variations on similar systems has major implications for designers seeking to create truly gender-responsive solutions.

The preference for modularity particularly supports gender-responsive design by enabling customization to accommodate different organizational patterns between male and female users. Importantly, these modular components should be designed differently for each gender to suit their specific needs, with male-oriented modules potentially featuring fewer but larger compartments for bulkier items, while female-oriented modules might include more numerous smaller compartments for accessories and varied garment types. Rather than creating explicitly gendered wardrobes, designers should focus on adaptable systems with core elements satisfying common preferences while incorporating sufficient flexibility to address diverse needs across the gender spectrum. This approach acknowledges both shared aesthetic preferences and gender-specific organizational requirements, potentially enhancing both psychological well-being and functional effectiveness.

IKEA's PAX system employs white finishes to achieve gender neutrality while providing the practical benefits of enhanced versatility and visibility, aligning with the survey's findings that 40.6% of consumers prefer bright-toned neutral palettes. While providing remarkable dimensional diversity and modular customization. Despite allowing considerable modification through diverse internal customizations, these components follow a universal design approach that overlooks gender-specific storage needs associated with different genders and cultures. The standard drawer dimensions, rail heights, and organizational accessories do not adequately address typical differences between male and female wardrobes, including differences in the lengths of garments, accessory quantities, and preferences for hanging versus folding items.

This gap between the existing wardrobe market and the research findings from the survey and content analysis represents a significant opportunity for innovation, developing a system that upholds aesthetic neutrality while incorporating internal configurations with adjustable features specially designed to address gender differences in clothing collections and organizational practices without overtly categorizing items by gender. Based on the research findings from the survey and content analysis, a gender-responsive wardrobe should maintain common aesthetic elements while integrating distinct organizational systems. Both male and female wardrobes should include bright-toned neutral colors (40.6% preference), minimalist design elements (42.9%), modular configurations (34.3%), and wooden materials (51%).

For male users, the wardrobe should feature fewer but larger compartments to hold bulkier items, increasing hanging space for formal wear and suits, deeper shelves for folded casual clothing, and simplified organizational systems that prioritize access and visibility. The masculine design should maintain clean lines with a possible industrial accent (metal hardware) to align with the preference for sturdier materials.

For female users, the wardrobe design should feature more numerous, smaller compartments for accessories, various hanging heights to suit different garment lengths, specialized storage for handbags/jewelry/scarves, and more adjustable/customizable organizational elements. The feminine design should maintain a neutral color palette but might also incorporate softer textures and finishes and a wide range of adaptable organizational accessories. In addition, for the female wardrobe, integrating LED lighting inside the wardrobe is essential for enhancing the visibility of a wide spectrum of fabric types and colors of garments typically found in the female wardrobe, allowing for better color distinction and improved functionality, making it easier to locate specific items, and streamlining the process

of selecting outfits during a busy morning, thereby addressing the psychological stress factors associated with cluttered and disorganized storage environments.

Both designs should avoid clear gendering through color while focusing on functional adaptations that address the specific organizational behaviors and clothing collections typical of each gender, ultimately enhancing psychological well-being through improved storage efficiency of the closet.

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