

Factors Influencing the Use of Face Masks in Terms of Aesthetic Value and Safety Aspect for Health Among Youth in Kajang During Endemic COVID-19

Irwan Syah Md Yusoff, Azhari Md Hashim and Lee Hui Min

Faktor yang Mempengaruhi Niat Pengguna Terhadap Penggunaan Aplikasi Perkhidmatan Penghantaran Makanan Secara dalam Talian di Sungai Petani, Kedah

Nur Fatin Afrah Mohamad Badrin dan Afida Mastura Muhammad Arif

Pembungkusan Pakaian Mesra Alam: Apa Respon Pengguna?

Nur Asma Hafizah Azahar dan Norzalina Zainudin

Faktor Sosio-demografi, Perbelanjaan Makanan dan Perkaitannya dengan Tahap Keterjaminan Makanan dalam Kalangan Pegawai Penjara di Malaysia

Mohamad Zulkefly Mohamad Yusop, Shamsul Azahari Zainal Badari dan Nur Aqilah Amalina Jaafar

The Relationship Between Key Determinants and Gen Z's Intention to Purchase Sustainable Products

Lim En Tong, Zuroni Md Jusoh and Norzalina Zainudin

Relationship Between Family Resources, Financial Stress, With Financial Management among Filipino Millennials

Ma. Jesusa Corazon M. Lambert, Zuroni Md Jusoh and Norzalina Zainudin

A Scoping Review of Digital Agritourism in Rural Development Futures

Siti Yuliandi Ahmad, Arina Johari and Susan Hama

JURNAL PENGGUNA MALAYSIA (Malaysian Consumer and Family Economics Association)

EDITORIAL BOARD

Chief Editor

Dr. Zuroni Md Jusoh
(zuroni@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

Managing Editor

Assoc. Prof. Dr. Syuhaily Osman
(syuly@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

Associate Editors

Assoc. Prof. Dr. Afida Mastura Muhammad Arif
(afidamastura@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

Prof. Dr. Rozita Naina Mohamed
(rozita449@uitm.edu.my)

Faculty of Business & Management, Universiti Teknologi
MARA

Asst. Prof. Dr. Siti Yuliandi Ahmad
(sityulindi@ium.edu.my)

Kulliyah of Sustainable Tourism and Contemporary
Languages, International Islamic University Malaysia

Dr. Nur Jasmine Lau Leby
(jasminelau@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

Assoc. Prof. Dr. Normalisa Md Isa
(normalisa@uum.edu.my)

School of Business Management,
Universiti Utara Malaysia

Dr. Monizaihasra Mohamed
(monizamohamed@umt.edu.my)

Faculty of Business, Economics and Social Development,
Universiti Malaysia Terengganu

Dr. Irwan Syah Md Yusoff
(irwansyah@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

Editorial Advisory Board

Prof. Dr. Ahmad Hariza Hashim
(ahariza@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

Prof. Dr. Faridah Haji Hassan
(faridah387@uitm.edu.my)

Faculty of Business Management, Universiti Teknologi
MARA

Prof. Dr. Norhasmah Sulaiman
(norhasmah@upm.edu.my)

Faculty of Medicine and
Health Sciences, Universiti Putra Malaysia

Assoc. Prof. Dr. Elistina Abu Bakar
(elistina@upm.edu.my)

Faculty of Human Ecology,
Universiti Putra Malaysia

International Editorial Board

Assoc. Prof. Dr. Megawati Simanjuntak
(jcs@apps.ipb.ac.id)

College of Human Ecology, Bogor Agricultural University

Assoc. Prof. Dr. Gancar Candra Premananto
(gancar-c-p@feb.unair.ac.id)

Faculty of Economics and Business, Airlangga University

Asst. Prof. Paweena Jeharrong
(paweena.j@yru.ac.th)

Faculty of Management Science Yala Rajabhat University

Asst. Prof. Dr. Ahmad Alshuaibi
(ahmad@imt.ac.ae)

Institute of Management Technology Dubai, United Arab
Emirates

Dr. Teerayuth Mooleng
(teerayuth.m@yru.ac.th)

Faculty of Management Science Yala Rajabhat University

Dr. Sani Muhd Gawuna
(sanimuhdgawuna@yahoo.com)

Faculty of Social and Management Science, Police
Academy Nigeria

Dr. Khondker Suraiya Nasreen
(suraiya.nasreen@iu.org)

IU International Hochschule Düsseldorf Campus,
Germany

Format Editor

Mr. Mat Noh Nor
(matnoh@upm.edu.my)

Sultan Salahuddin Abdul Aziz Shah Arts and Cultural
Centre, Universiti Putra Malaysia

JURNAL PENGGUNA MALAYSIA adalah keluaran Persatuan Ekonomi Pengguna dan Keluarga Malaysia. Ia bertujuan untuk menyebarkan, menambah dan berkongsi maklumat berkaitan hal ehwal, undang-undang, penyelidikan dan isu semasa pengguna. Jurnal ini juga menggalakkan penulisan dan perkongsian idea tentang masalah dan keperluan pengguna dalam bentuk rencana, ulasan dan penyelidikan. Sila rujuk panduan kepada penulis untuk penghantaran bahan artikel

Ketua Editor,
Jurnal Pengguna Malaysia
d/a Jabatan Pengurusan Sumber dan Pengajian Pengguna
Fakulti Ekologi Manusia, Universiti Putra Malaysia
43400 UPM Serdang, Selangor
Emel: macfea.upm@gmail.com

Hak cipta terpelihara © 2025
Oleh Persatuan Ekonomi Pengguna dan Keluarga Malaysia

Factors Influencing the Use of Face Masks in Terms of Aesthetic Value and Safety Aspect for Health Among Youth in Kajang During Endemic COVID-19 <i>Irwan Syah Md Yusoff, Azhari Md Hashim and Lee Hui Min</i>	1
Faktor yang Mempengaruhi Niat Pengguna terhadap Penggunaan Aplikasi Perkhidmatan Penghantaran Makanan Secara dalam Talian di Sungai Petani, Kedah <i>Nur Fatin Afrah Mohamad Badrin dan Afida Mastura Muhammad Arif</i>	12
Pembungkusan Pakaian Mesra Alam: Apa Respon Pengguna? <i>Nur Asma Hafizah Azahar dan Norzalina Zainudin</i>	23
Faktor Sosio-demografi, Perbelanjaan Makanan dan Perkaitannya dengan Tahap Keterjaminan Makanan dalam Kalangan Pegawai Penjara di Malaysia <i>Mohamad Zulkefly Mohamad Yusop, Shamsul Azahari Zainal Badari dan Nur Aqilah Amalina Jaafar</i>	47
The Relationship Between Key Determinants and Gen Z's Intention to Purchase Sustainable Products <i>Lim En Tong, Zuroni Md Jusoh and Norzalina Zainudin</i>	69
Relationship Between Family Resources, Financial Stress, With Financial Management among Filipino Millennials <i>Ma. Jesusa Corazon M. Lambert, Zuroni Md Jusoh and Norzalina Zainudin</i>	87
A Scoping Review of Digital Agritourism in Rural Development Futures <i>Siti Yuliandi Ahmad, Arina Johari and Susan Hama</i>	107

PENYUMBANG ARTIKEL

Afida Mastura Muhammad Arif	Faculty of Human Ecology, Universiti Putra Malaysia
Arina Johari	International Islamic University Malaysia
Azhari Md Hashim	College of Creative Arts, Universiti Teknologi MARA (UiTM) Kedah branch campus
Irwan Syah Md Yusoff	Faculty of Human Ecology, Universiti Putra Malaysia
Lee Hui Min	Faculty of Human Ecology, Universiti Putra Malaysia
Lim En Tong	Faculty of Human Ecology, Universiti Putra Malaysia
Ma. Jesusa Corazon M. Lambert	Faculty of Human Ecology, Universiti Putra Malaysia
Mohamad Zulkefly Mohamad Yusop	Faculty of Human Ecology, Universiti Putra Malaysia
Norzalina Zainudin	Sustainable Consumption Research Group, Faculty of Human Ecology, Universiti Putra Malaysia
Nur Aqilah Amalina Jaafar	Faculty of Human Ecology, Universiti Putra Malaysia
Nur Asma Hafizah Azahar	Faculty of Human Ecology, Universiti Putra Malaysia
Nur Fatin Afrah Mohamad Badrin	Faculty of Human Ecology, Universiti Putra Malaysia
Shamsul Azahari Zainal Badari	Faculty of Human Ecology, Universiti Putra Malaysia
Siti Yuliandi Ahmad	International Islamic University Malaysia
Susan Hama	Yala Rajabhat University, Thailand
Zuroni Md Jusoh	Faculty of Human Ecology, Universiti Putra Malaysia

FACTORS INFLUENCING THE USE OF FACE MASKS IN TERMS OF AESTHETIC VALUE AND SAFETY ASPECT FOR HEALTH AMONG YOUTH IN KAJANG DURING ENDEMIC COVID-19

Irwan Syah Md Yusoff *¹
Azhari Md Hashim²
Lee Hui Min¹

*Corresponding author: (email: irwansyah@upm.edu.my)

Abstract

The COVID-19 pandemic has significantly altered public health behaviors, particularly through the widespread use of face masks. As Malaysia enters the endemic phase, face mask use among youth becomes less of a regulation and more of a personal choice. This study explores the factors influencing youth in Kajang, Selangor, to continue using face masks by focusing on two key perspectives: aesthetic value and the safety aspect in relation to health. A quantitative, cross-sectional research design was employed involving 250 youth aged 18–30 years selected through convenience sampling. Data collection was carried out through face-to-face surveys using a structured questionnaire that measured variables such as comfort, design, user-friendliness and perceived health benefits. Descriptive statistics revealed that 69.6% of respondents used three-layer masks and 64% wore masks for more than five hours a day. A notable proportion (36.8%) expressed dislike for respirator-type masks (e.g., N95, KF94), citing discomfort and poor aesthetic appeal. The Pearson correlation analysis demonstrated statistically significant and positive relationships between comfort ($r = 0.374$, $p = 0.000$), design ($r = 0.289$, $p = 0.000$) and user-friendliness ($r = 0.448$, $p = 0.000$) with perceived health protection. These findings indicate that youth prioritize safety but are also influenced by comfort and design elements. The aesthetic value enhances their willingness to wear masks, especially in social settings where self-image and fashion are valued. This study provides valuable insights for policymakers, public health officials and product designers to create effective, user-centered and health-conscious mask interventions. Future public health strategies should consider combining aesthetics with functionality to sustain compliance among younger populations during health crises.

Keywords: COVID-19, Face masks, Youth, Aesthetic value, Safety aspect, Health behavior, Comfort, Design, Usability

¹Department of Resource Management and Consumer Studies, Faculty of Human Ecology, Universiti Putra Malaysia
²College of Creative Arts, Universiti Teknologi MARA (UiTM) Kedah branch campus

Abstrak

Pandemik COVID-19 telah mengubah dengan ketara tingkah laku kesihatan awam, khususnya melalui penggunaan pelitup muka secara meluas. Apabila Malaysia memasuki fasa endemik, penggunaan pelitup muka dalam kalangan golongan belia menjadi kurang bersifat peraturan dan lebih kepada pilihan peribadi. Kajian ini meneroka faktor-faktor yang mempengaruhi belia di Kajang, Selangor untuk terus menggunakan pelitup muka dengan memberi tumpuan kepada dua perspektif utama: nilai estetika dan aspek keselamatan dari segi kesihatan. Reka bentuk kajian kuantitatif rentas seksyen telah digunakan melibatkan 250 orang belia berumur 18–30 tahun yang dipilih melalui pensampelan kemudahan. Pengumpulan data dijalankan melalui soal selidik berstruktur secara bersemuka yang mengukur pemboleh ubah seperti tahap keselesaan, reka bentuk, kemudahan penggunaan, dan persepsi terhadap manfaat kesihatan.

Statistik deskriptif menunjukkan bahawa 69.6% responden menggunakan pelitup muka tiga lapis, dan 64% memakainya lebih daripada lima jam sehari. Sebahagian responden (36.8%) menyatakan ketidaksukaan terhadap pelitup muka jenis respirator (contohnya N95, KF94) kerana ketidakelesaan dan kurangnya daya tarikan estetika. Analisis korelasi Pearson menunjukkan hubungan yang signifikan dan positif antara tahap keselesaan ($r = 0.374$, $p = 0.000$), reka bentuk ($r = 0.289$, $p = 0.000$), dan kemudahan penggunaan ($r = 0.448$, $p = 0.000$) dengan perlindungan kesihatan yang dirasakan. Dapatan ini menunjukkan bahawa golongan belia mengutamakan keselamatan tetapi turut dipengaruhi oleh elemen keselesaan dan reka bentuk. Nilai estetika meningkatkan kesediaan mereka untuk memakai pelitup muka, terutamanya dalam situasi sosial di mana imej diri dan gaya menjadi keutamaan. Kajian ini memberikan pandangan berguna kepada pembuat dasar, pegawai kesihatan awam, dan pereka produk untuk menghasilkan intervensi pelitup muka yang berkesan, berpusatkan pengguna, serta mementingkan kesihatan. Strategi kesihatan awam pada masa hadapan perlu mempertimbangkan gabungan estetika dan fungsi untuk mengekalkan pematuhan dalam kalangan populasi belia semasa krisis kesihatan.

Kata kunci: *COVID-19, Pelitup muka, Belia, Nilai estetika, Aspek keselamatan, Tingkah laku kesihatan, Keselesaan, Reka bentuk, Kebolehgunaan*

Introduction

The COVID-19 pandemic, caused by the SARS-CoV-2 virus, rapidly escalated into a global health crisis that significantly altered daily life, health practices and social norms worldwide. In Malaysia, the government introduced a series of measures, including Movement Control Orders (MCOs) and mandatory mask-wearing, to contain the virus. With the transition into the endemic phase, face mask usage is no longer strictly enforced but remains encouraged in certain settings.

Youth, defined in Malaysia as individuals aged 18 to 30, represent a dynamic group with distinct lifestyle preferences, fashion sensibilities and health awareness. In urban settings like Kajang, youth face a dual influence—social pressure to conform to fashion trends and responsibility to maintain public health. For many, face masks have evolved from mere protective gear into fashion accessories.

This study aims to identify the factors influencing youth to continue using face masks during the endemic phase, specifically focusing on comfort, design, and user-friendliness, and how these factors relate to both aesthetic value and perceived health safety. Understanding these preferences is crucial for public health planning and product innovation, ensuring that protective behaviors remain consistent even in the absence of mandates.

Literature Review

The COVID-19 pandemic led to a significant global increase in the demand for face masks, transforming them into essential tools of public health. In countries such as Japan and South Korea, mask-wearing was already culturally embedded before the pandemic. However, in Malaysia, mask usage initially felt unfamiliar before gradually becoming normalized as part of daily routines (Rahman & Chan, 2022). Studies by Matuschek et al. (2020) and Wang et al. (2020) confirmed that different types of masks offer varying degrees of protection, with surgical and N95 masks providing better filtration efficiency. However, these mask types often compromise comfort and aesthetics, which affects long-term usage, particularly among younger populations.

Comfort plays a critical role in sustained mask-wearing behavior. Research has shown that discomfort, skin irritation, breathing difficulty and heat accumulation lead to reduced compliance (Lee et al., 2020; O'Connor et al., 2020). More recent findings by Nasir et al. (2023) indicate that youth are particularly sensitive to issues such as acne breakout, facial marks and overall fatigue caused by prolonged mask use. Factors such as breathability, lightweight materials and appropriate fit significantly influence comfort and willingness to continue wearing masks during endemic conditions.

In addition to comfort, design has emerged as a key factor, particularly for youth who consider self-image and personal style in their daily social interactions. Studies by Park and Ha (2022) and Liang et al. (2022) suggest that aesthetically appealing masks enhance satisfaction and strengthen motivation for continuous use. Recent research by Lim & Abdullah (2024) further emphasizes that color harmony, patterns and contemporary fashion trends allow masks to function not only as protective devices but also as identity expressions that align with lifestyle and social belonging.

User-friendliness is another important dimension that includes ease of wearing, adjustability, storage and maintenance. Chua et al. (2020) highlight the significance of practical usability in encouraging habitual use. Youth with active, mobile lifestyles tend to avoid masks that are difficult to handle, clean, or integrate into daily routines. The *Aesthetic Usability Effect* suggests that visually appealing products are often perceived as easier to use (Han et al., 2019), while contemporary design research frames mask design as a synthesis of functionality, aesthetic value, and emotional engagement (Liu & Kim, 2023). This perspective reinforces the idea that mask adoption is influenced not only by perceived health protection but also by personal comfort, identity affirmation, and emotional resonance with the product.

In summary, the existing literature indicates that safety, comfort, and design are interconnected elements influencing mask-wearing among youth. Their decisions are shaped by both health-related considerations and social-aesthetic values. Therefore, understanding these dual motivations is necessary for developing effective public health messaging and designing user-centered mask products that remain relevant in the endemic phase.

Methodology

This study employed a quantitative, cross-sectional design to examine the factors that influence the use of face masks among youth in Kajang, Selangor, particularly in the post-pandemic endemic phase. The study population consisted of young individuals aged between 18 and 30 years. A total of 250 respondents were selected using convenience sampling, a non-probability technique suitable for exploratory studies with limited time and resources.

The main data collection tool was a structured, self-administered questionnaire, distributed face-to-face in urban public locations such as universities, shopping malls, recreational parks and cafes around Kajang. The questionnaire was divided into five sections:

1. **Demographic Information:** gender, age group, education level, employment status
2. **Comfortability Scale:** breathability, softness, temperature control, absence of irritation
3. **Design Scale:** shape, color, trendiness, fashion compatibility
4. **User-Friendliness Scale:** ease of wear/removal, adjustability, reusability, storage
5. **Perceived Health Protection:** feelings of safety and protection provided by mask usage.

Responses were measured using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). To ensure reliability, a pilot study was conducted involving 30 participants and Cronbach's Alpha coefficients for all constructs exceeded 0.75, indicating acceptable internal consistency. Data were analyzed using SPSS version 26. Descriptive statistics (frequency, percentage, and mean) were used to summarize respondent profiles and mask usage patterns. Pearson product-moment correlation analysis was conducted to determine the relationship between comfort, design, and user-friendliness (independent variables) and perceived health protection (dependent variable).

Results And Discussion

Demographic Profile

The demographic findings indicate a balanced gender distribution, with females slightly outnumbering males. Most respondents fall within the 20–25 age group (63.2%), representing socially active, fashion-conscious and tech-savvy individuals — making them a relevant demographic to study mask-wearing behavior. A large proportion (84%) holds tertiary or postgraduate education, suggesting high health awareness and access to information. Nearly half (48%) are full-time students, while others are employed part-time or full-time, reflecting a diverse range of youth lifestyles in Kajang.

Table 1: Demographic Profile

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	115	46.0%
	Female	135	54.0%
Age Group	18–19 years	42	16.8%
	20–25 years	158	63.2%
	26–30 years	50	20.0%
Education Level	Secondary School	40	16.0%
	Tertiary	150	60.0%
	(Diploma/Degree)	60	24.0%
	Postgraduate		
Employment Status	Student	120	48.0%
	Part-time Employed	42	16.8%
	Full-time Employed	55	22.0%
	Unemployed	33	13.2%

N:250

Mask Usage Patterns

A majority of youth respondents (69.6%) prefer 3-layer surgical masks due to their balance of protection and comfort. Only a small percentage (13.6%) use respirator-style masks (N95/KF94), while over one-third (36.8%) reported disliking them due to discomfort, difficulty in breathing, or bulky appearance.

Additionally, 64% of respondents reported wearing masks for more than five hours daily, signifying long-duration wear either at work, school, or during social outings. These findings underscore the importance of comfort, breathability and ergonomic design — especially among youth who spend significant time outdoors or in public settings. The relatively low uptake of cloth masks suggests that aesthetic appeal alone is insufficient without adequate comfort and functionality.

Table 2: Mask Usage Patterns

Usage Indicator	Category	Frequency (n)	Percentage (%)
Preferred Mask Type	3-Layer Surgical Mask	174	69.6%
	Fabric/Cloth Mask	42	16.8%
	N95/KF94/Respirator Type	34	13.6%
Daily Usage Duration	Less than 2 hours	21	8.4%
	2–4 hours	69	27.6%
	More than 5 hours	160	64.0%
Dislike for N95/KF94	Yes	92	36.8%
	No	158	63.2%

N:250

Correlation Analysis

Pearson correlation analysis reveals statistically significant relationships between all independent variables (comfortability, design and user-friendliness) and the dependent variable (perceived health protection):

- User-friendliness ($r = 0.448$) emerged as the strongest factor, suggesting that ease of wearing, reusability, adjustability and overall usability significantly influence youth mask-wearing behavior. This reflects the practical consideration of youth who often juggle active, mobile routines.
- Comfortability ($r = 0.374$) also showed a moderately strong relationship, reinforcing the view that physical comfort — such as softness, breathability and temperature control — is essential for compliance, especially during long hours of mask use.

Design ($r = 0.289$), though the weakest of the three, still demonstrated a statistically significant correlation. This suggests that aesthetic considerations — such as style, color coordination and visual appeal — do influence mask selection, especially among fashion-conscious youth.

Table 3: Correlation Analysis

Factor	Pearson Correlation (r)	Significance (p)	Strength of Relationship
Comfortability	0.374	0.000	Moderate
Design	0.289	0.000	Low to Moderate
User-Friendliness	0.448	0.000	Moderate to Strong

Discussion

The results of this study demonstrate that mask-wearing behavior among youth in Kajang is influenced by comfort, design and user-friendliness, with varying strengths of association. The demographic profile shows that the majority of respondents are young adults aged 20–25 and are mostly students or in early employment. This group is typically active, socially engaged and image-aware, which helps explain the strong emphasis placed on both comfort and design in their mask selection.

Comfort and Perceived Health Protection

The correlation analysis revealed a moderate and statistically significant relationship between comfort and perceived health protection ($r = 0.374$, $p < 0.01$). This is consistent with the finding that **64% of respondents wore masks for more than five hours per day**, where prolonged duration increases the importance of breathability and reduced skin irritation. Respondents who found masks uncomfortable were more likely to avoid tight-fitting respirator types such as N95 and KF94, as reflected by **36.8% expressing dislike** toward them.

These patterns indicate that **comfort is not merely a preference but a determinant of continued compliance**, particularly in Malaysia’s warm and humid environment. The result supports previous literature indicating that discomfort contributes to inconsistent mask use over time. In other words, for youth, comfort directly enhances perceived safety because it enables longer and more consistent wear.

User-Friendliness as the Strongest Predictor

User-friendliness showed the strongest correlation with perceived health protection ($r = 0.448$, $p < 0.01$), suggesting that ease of wearing, adjustability and practicality play a central role in mask adoption. This aligns with the activity patterns of respondents,

where nearly half (48%) are full-time students who frequently transition between indoor and outdoor environments. A mask that can be easily removed, stored and reused allows smoother integration into daily routines.

This finding reinforces the idea that functional usability contributes to sustained behavioral adherence. Youth are more likely to continue wearing masks when the product supports their mobility and lifestyle rather than disrupts it. Therefore, health communication strategies and product designs should prioritize ergonomic features such as adjustable straps, foldability and lightweight materials.

Design and Aesthetic Value in Social Context

Although design showed the weakest correlation among the three factors ($r = 0.289$, $p < 0.01$), its statistical significance indicates that aesthetic appeal still influences mask-wearing behavior, particularly among a demographic that values personal image and social presentation. The demographic profile, where the majority are educated, socially active young adults, supports this interpretation.

The preference toward **3-layer surgical masks (69.6%)** over cloth masks suggests that **fashion appeal alone is insufficient** unless supported by comfort and perceived protection. However, respondents still expressed a preference for masks that match outfits, appear minimalistic, or have appealing form-fitting shapes. This reflects a balance between *function-first* and *style-enhanced* decision-making.

Integrated Interpretation and Implications

Overall, the findings confirm that youth mask-wearing behavior during the endemic phase is shaped by the interaction of safety concerns, comfort and self-expression. While health protection remains the underlying motivation, practicality and aesthetics influence whether mask-wearing is sustained voluntarily.

Conclusion

This study examined the factors influencing youth in Kajang to continue wearing face masks during the endemic phase of COVID-19, with a particular focus on comfort, design and user-friendliness. The results demonstrated that all three factors had significant positive correlations with perceived health protection, with user-friendliness emerging as the strongest predictor, followed by comfort and then design.

These findings indicate that mask-wearing is shaped not only by health awareness but also by practical usability and aesthetic considerations. Youth are more likely to consistently wear masks when the product aligns with their daily routines, personal comfort and social identity. While safety remains the underlying motivation, the

decision to sustain mask use is influenced by how well the mask fits into their lifestyle and sense of self.

Overall, mask-wearing behavior among youth in the endemic context is multidimensional, reflecting the intersection of health perception, ergonomic design and aesthetic preference. Understanding these combined influences is crucial in sustaining voluntary compliance where mask use is no longer mandated.

Implications for Theory

The findings contribute to the growing body of behavioral health literature by demonstrating that protective health behavior is influenced by both functional and psychosocial determinants. Specifically:

1. Health Belief Model (HBM) Extension

The study reinforces the idea that perceived benefits (e.g., safety) must be supported by reducing perceived barriers (e.g., discomfort or inconvenience). Comfort and usability act as *behavioral enablers*, suggesting that compliance improves when practical barriers are minimized.

2. Aesthetic-Usability Effect in Public Health Products

The significant role of design supports theoretical perspectives that visual and emotional appeal enhance perceived value and acceptance. Mask-wearing can thus be understood as both a health practice and a form of self-expression, particularly among youth.

3. Person-Product Fit Theory

The results highlight that alignment between product attributes and user lifestyle influences sustained use, reinforcing the importance of personalized or identity-compatible health products.

Implications for Policy and Managerial Practice

1. Product Design and Manufacturing

- Mask producers should prioritize ergonomic features, including better breathability, adjustable components, lightweight materials and skin-safe fabrics.
- Incorporating aesthetic variations (color choices, minimalistic designs, contemporary styles) can support sustained mask adoption among youth.

2. Health Communication Strategies

- Public health messaging should shift from compliance-based directives to user-centered motivation.
- Campaigns should frame mask-wearing as part of smart, responsible and identity-conscious lifestyle practices rather than only disease prevention.

3. Retail and Commercial Strategy

- Retailers can segment mask products according to lifestyle preferences: active wearers, students, professionals and fashion-driven users.
- Bundling masks with personal accessories or seasonal fashion collections may increase voluntary usage.

4. Institutional and Community Settings

- Universities and workplaces should provide mask options that balance protection and comfort, especially for individuals who must wear masks for long hours.

References

- Chua, M. H., Cheng, W., Goh, S. S., Kong, J., Li, B., Lim, J. Y. C., Mao, L., Wang, S., Xue, K., Yang, L., & Ye, E. (2020). Face masks in the new COVID-19 normal: Materials, testing and perspectives. *ACS Nano*, *14*(5), 6348–6365. <https://doi.org/10.1021/acsnano.0c03523>
- Han, S., Lee, H., & Kim, J. (2019). Aesthetic usability effect in product design: The role of visual harmony and complexity. *Journal of Design Research*, *17*(3), 241–258.
- Lee, S., Kim, H., & Park, J. (2020). Impact of prolonged mask wearing on facial discomfort and skin symptoms. *Dermatology Reports*, *12*(2), 45–52.
- Liang, Y., Song, Q., & Xu, M. (2022). Fashion-oriented mask design and consumer emotional response during the COVID-19 era. *International Journal of Consumer Studies*, *46*(4), 1234–1246. <https://doi.org/10.1111/ijcs.12772>
- Lim, S. N., & Abdullah, A. (2024). Youth identity and fashion adoption of protective masks in post-pandemic Malaysia. *Journal of Social Psychology and Culture*, *12*(1), 55–70.
- Liu, W., & Kim, Y. (2023). Functional-aesthetic integration in public health product design: Understanding mask adoption. *Design & Health Review*, *9*(2), 88–104.

- Matuschek, C., Moll, F., Fangerau, H., Fischer, J. C., Zänker, K., Van Griensven, M., Schneider, M., Kindgen-Milles, D., Trudo, A., & Lücker, F. (2020). Face masks: Benefits and risks during the COVID-19 crisis. *European Journal of Medical Research*, 25(1), 32. <https://doi.org/10.1186/s40001-020-00430-5>
- Nasir, N., Yahaya, N., & Hamid, R. (2023). Mask-wearing fatigue among Malaysian youth during endemic COVID-19: A dermatological and psychological perspective. *Malaysian Journal of Public Health Medicine*, 23(1), 112–120.
- O'Connor, M., Farley, S., & Keegan, J. (2020). Barriers to mask compliance among young adults during COVID-19. *Journal of Health Behavior*, 59(4), 101–109.
- Park, H., & Ha, J. (2022). Social identity and aesthetic preferences in mask-wearing among urban youth. *Journal of Fashion and Textiles*, 9(1), 1–15. <https://doi.org/10.1186/s40691-022-00294-w>
- Rahman, N. H., & Chan, S. L. (2022). Cultural adaptation of mask-wearing practices in Malaysia during the COVID-19 pandemic. *Malaysian Journal of Social Sciences and Humanities*, 7(6), 1–15.
- Wang, Y., Tian, H., Zhang, L., Zhang, M., Guo, D., Wu, W., Zhang, X., & Kan, G. L. (2020). Reduction of secondary transmission of SARS-CoV-2 in households by face mask use and disinfection. *BMJ Global Health*, 5(5), e002794. <https://doi.org/10.1136/bmjgh-2020-002794>

JURNAL PENGGUNA MALAYSIA

