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(IJIREV)**www.gaexcellence.com/ijirev**NAVIGATING THE 'TACTILE DISCONNECT':
E-COMMERCE SHOPPING ORIENTATIONS AND
OMNICHANNEL INTENTIONS AMONG GENERATION Y
AND GENERATION Z IN MALAYSIA**Normaziana Hassan^{1*}, Basitah Taif², Rosita Mohd Tajuddin³, Dahlan Abdullah⁴¹ Faculty of Art & Design, Universiti Teknologi MARA Kedah Branch, Sungai Petani Campus, 08400 Merbok, Kedah Darul Aman, Malaysia normazianahassan@uitm.edu.my <https://orcid.org/0000-0003-2813-7909>^{2,3} Faculty of Art & Design, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan, Malaysia basitah@uitm.edu.my <https://orcid.org/0009-0005-9496-4517> rositatajuddin@uitm.edu.my <https://orcid.org/0009-0002-0074-4045>⁴ Faculty of Hotel & Tourism Management, Penang Branch, Permatang Pauh Campus, Jalan Permatang Pauh, 13500 Permatang Pauh, Penang, Malaysia dahla707@uitm.edu.my <https://orcid.org/0000-0003-1935-571X>

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Abstract:

The purpose of this research is to investigate the impact of digital e-commerce factors on young consumers' intentions to visit physical apparel stores. The hyper-urbanized Klang Valley, Malaysia, is the focus of the paper, which discusses the concept of "digital dissonance," which is the sensory and fit mismatch between the way apparel is presented online and how it fits in the real retail environment, due to high tactile deprivation and the inconsistent regional sizing standards. The Technology Acceptance Model (TAM), Stimulus-Organism-Response (SOR) model, as well as the Theory of Planned Behavior (TPB) are combined in this study. Personal style, brand reputation, trends, and ease of use are digital cues, which serve as external stimuli (S). Platform utility from TAM and user attitudes from TPB together drive the internal processing phase (O). Finally, social norms as well as Perceived Behavioral Control (PBC) drive the actual decision to travel (R). Data were collected via purposive sampling from 384 young adult respondents aged 18–41 (Generation Y: $n=188$; Generation Z: $n=196$) with recent webrooming experience. Empirical evaluation utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) revealed that Personal Style ($\beta = 0.284$, $p < 0.001$), Brand Reputation ($\beta = 0.215$, $p = 0.002$), and Perceived Ease of Use (PEOU) ($\beta = 0.198$,

Industrial Revolution, 8(26), 577-585. $p = 0.004$) significantly and positively influence Attitude toward physical visitation, whereas Trend was non-significant ($\beta = 0.076$, $p = 0.182$). Attitude strongly predicts physical visitation intention ($\beta = 0.412$, $p < 0.001$). Multi-Group Analysis (MGA) revealed key generational differences: PBC significantly drives physical visitation for Generation Y ($\beta = 0.385$, $p < 0.001$), driven by the need to resolve fit uncertainty, whereas Subjective Norms significantly drives physical visitation for Generation Z ($\beta = 0.421$, $p < 0.001$), driven by social validation. This research provides practical implications for omnichannel retailers navigating the sensory limitations of online apparel shopping.

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Keywords:

Consumer Behaviour, E-Commerce Orientations, Generational Cohorts, Multi-Group Analysis (MGA), Omnichannel Retail, Sensory Limitations



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Introduction

Malaysia's retail market is making rapid strides towards e-commerce. The trend is particularly pronounced in big cities such as the Klang Valley. Young consumers have become accustomed to browsing online every day, with fast 5G networks and mobile-first shopping. However, there is an intriguing paradox in the clothing industry. Shopping for products on a mobile phone is easy, but clothing shopping is still sensory. Digital screens do not capture the drape, feel, or fit of a fabric. This disconnect creates a sense of "digital dissonance" for shoppers as they consider the appealing product images they see online but may not be able to experience in real life. Consumers overcome this void by webrooming. Firstly, they do online shopping for products. After that, they prefer a brick-and-mortar shop to try on and test the product before purchasing. This study aims to explore what e-commerce drivers encourage physical store visits, and how the motivations differ between Generation Y and Generation Z, since existing studies have tended to look at young shoppers as a single group.

Literature Review

The Sensory Limitations of Online Apparel Shopping and Omnichannel Behaviour

Not being able to physically experience the product online is a big hurdle to e-commerce apparel adoption. Apparel is an experience good that can only be tested by touching it to assess its material characteristics, such as weight, texture, and fit. Haptic deprivation directly leads to an increase in information asymmetry, perceived risk, and product return rates. These sensory restrictions are the push for cross-channel migration in the omnichannel retail context. Digital friction is caused by inconsistent digital sizing and complicated return processes that make

consumers want to experience the physical retail sizing. Webrooming is a systematic risk-reduction approach to solve digital dissonance between the product representations on the Internet and their physical expectations.

Theoretical Framework: Integrating SOR, TAM, and TPB

This study does not see the e-commerce and physical retail worlds as two distinct worlds but rather as three models in the same Stimulus-Organism-Response (SOR) model:

Stimulus (S): Digital platforms serve as the primary external entry point for online consumers. Initial audience interest is captured by symbolic cues, such as Personal Style and Trends. Meanwhile, shoppers are reassured of platform reliability through functional cues from the Technology Acceptance Model (TAM), especially Perceived Ease of Use (PEOU) and Brand Reputation.

Organism (O): Attitude toward store visitation (Theory of Planned Behavior (TPB)) is a measure of internal psychological assessment, which measures the shoppers' consideration of digital convenience versus online sensory restrictions.

Response (R): Perceived Behavioural Control (PBC) and Subjective Norms (TPB) are used to guide the actual decision to travel to a physical store, thus taking the online engagement to a physical action.

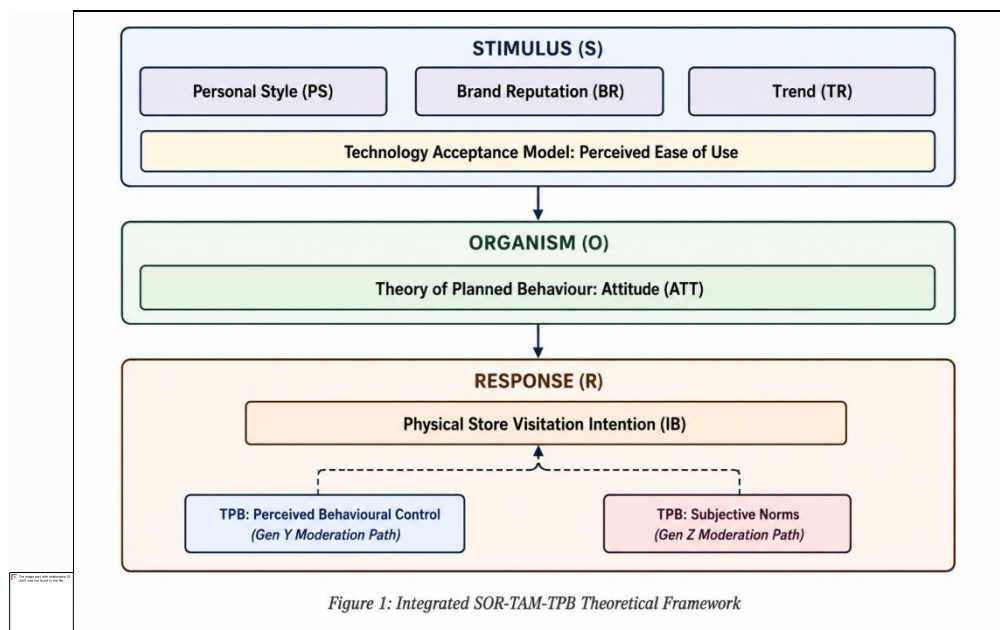


Figure 1: Integrated SOR-TAM-TPB Theoretical Framework

Source: Adopted by the Researchers

Hypotheses Development

Direct Stimuli and Attitudinal Mediation

Digital e-commerce cues are the first instigators of physical travel. Perceived functional risk is reduced by utilitarian drivers (Brand Reputation and PEOU), and symbolic drivers (Personal

Style and Trend) facilitate identity creation. These cues help to influence a consumer's internal attitude to enter a retail outlet to make an apparel purchase.

H1: Personal Style (PS) positively influences Attitude (ATT) towards physical store visitation.

H2: Brand Reputation (BR) positively influences Attitude (ATT) towards physical store visitation.

H3: Trend (TR) positively influences Attitude (ATT) towards physical store visitation.

H4: Perceived Ease of Use (PEOU) positively influences Attitude (ATT) towards physical store visitation.

H5: Attitude (ATT) positively mediates the relationship between digital stimuli and physical store visitation intention (IB).

Generational Moderation (MGA)

Generational Cohort Theory proposes that the migration pathway of channels depends on the technology that the user was exposed to during his or her development. Digital Adapters (Generation Y) are pragmatic risk reducers and fit verifiers.

H6: The path from Perceived Behavioural Control (PBC) to Physical Visitation Intention (IB) is significantly stronger for Generation Y than Generation Z. Generation Z (Digital Natives) prioritize peer validation, social identity, and trend participation.

H7: The path from Subjective Norms (SN) to Physical Visitation Intention (IB) is significantly stronger for Generation Z than Generation Y.

Methodology

Sampling Design and Data Collection

The research design used was a deductive quantitative design, conducted in the Klang Valley, Malaysia. Active apparel consumers aged 18-41 who had webroomed (researched online and then visited a physical store) in the past six months were established via purposive sampling. There were a total of 384 valid responses. The sample was split into two generational cohorts: Generation Y (ages 27–41, $n = 188$) and Generation Z (ages 18–26, $n = 196$). The sample size was determined to be adequate for structural evaluation and MGA comparisons based upon G*Power 3.1 ($f^2 = 0.15$, $\alpha = 0.05$, power = 0.95).

Measurement and Analytical Strategy

Construct items were developed from items in the literature that were previously validated and utilized a 5-point Likert scale (1= Strongly Disagree to 5= Strongly Agree). Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed for the analysis of the collected data using SmartPLS 4.

The indicator reliability, convergent validity (AVE > 0.50), and discriminant validity (HTMT < 0.85) of the measurement model were assessed. A 10,000-bootstrap resampling procedure was used to do the hypothesis testing. PLS- Multi-Group Analysis (MGA) was used to assess differences between Generation Y and Generation Z.

Results and Discussion

Measurement Model Assessment

Factor loadings for all the construct indicators were greater than 0.707. All latent constructs had Cronbach's alpha and Composite Reliability (CR) values above 0.80, indicating internal consistency. Convergent validity was established by Average Variance Extracted (AVE) values that were greater than 0.50. All of the Heterotrait-Monotrait (HTMT) ratios were less than 0.85, which indicates discriminant validity.

Structural Model and Hypotheses Testing

Table 1 presents the direct path estimates for the structural model (H1–H4) and target visitation outcomes.

Table 1: Structural Path Coefficients (Full Sample: N = 384)

Hypotheses	Path Relationship	Path Coeff (β)	<i>t</i> -Value	<i>p</i> -Value	Decision
H1	Personal Style → Attitude	0.284	4.812	< 0.001	Supported
H2	Brand Reputation → Attitude	0.215	3.104	0.002	Supported
H3	Trend → Attitude	0.076	1.336	0.182	Not Supported
H4	Perceived Ease of Use → Attitude	0.198	2.871	0.004	Supported
H5 (Direct)	Attitude → Visitation Intention	0.412	6.521	< 0.001	Supported

Personal Style ($\beta = 0.284$, $p < 0.001$), Brand Reputation ($\beta = 0.215$, $p = 0.002$), and PEOU ($\beta = 0.198$, $p = 0.004$) significantly influence consumer Attitude toward physical retail visitation. Personal Style exerted the strongest relative effect on store visitation attitude. Trend did not substantially influence Attitude ($\beta = 0.076$, $p = 0.182$). Attitude strongly predicts physical store visitation intention ($\beta = 0.412$, $p < 0.001$), supporting H5 mediation. Overall, digital stimuli explain 48.6% of the variance in Attitude ($R^2 = 0.486$), and the full model accounts for 52.1% of the variance in physical visitation intention ($R^2 = 0.52$).

Multi-Group Analysis (Generation Y vs. Generation Z)

To test H6 and H7, PLS-MGA evaluated differences between Generation Y ($n=188$) and Generation Z ($n=196$).

Table 2: Multi-Group Analysis Results (Gen Y vs. Gen Z)

Path Relationship	Gen Y β	Gen Z β	Path Diff ($\beta_{GenY} - \beta_{GenZ}$)	MGA p -Value	Decision
H6: PBC $\rightarrow$ Visitation Intention	0.385	0.121	0.264	0.002	Supported
H7: SN $\rightarrow$ Visitation Intention	0.114	0.421	0.307	< 0.001	Supported

The MGA results reveal significant structural differences between cohorts:

- **Generation Y (H6 Supported):** PBC strongly influences visitation intention ($\beta = 0.385$, $p < 0.001$), whereas its effect is weak for Generation Z ($\beta = 0.121$, $p = 0.084$). There is a significant difference in the path difference ($p = 0.002$). Generation Y consumers rely on physical trips to stores to control fit risk, sizing, and to have control over transactions.
- **Generation Z (H7 Supported):** The influence of Subjective Norms on visitation intention is strong for Generation X ($\beta = 0.421$, $p < 0.001$), and weaker for Generation Y ($\beta = 0.114$, $p = 0.112$). There is a statistically significant difference in the path difference ($p < 0.001$). Generation Z comes into stores mostly for social validation, peer engagement, and shared shopping experiences.

Theoretical Contributions

This study sheds light on the online channel restrictions that lead to physical store visits. The combination of TAM and TPB in the SOR framework demonstrates that digital apparel shopping is initially inspirational when using online interfaces. However, the sensory nature of apparel shopping is a driver for physical stores to complete transactions. Secondly, MGA research shows that there are differences between generations when it comes to what drives them to channel: Generation Y is driven to channel by functional risk management, and Generation Z is driven to channel by social influence.

Practical Implications for Omnichannel Retailers

Here are some takeaways for omnichannel retailers from these findings:

- **Strategies for Generation Z:** Generation Z expects a physical store to be a place where they can engage in social interactions and have a shareable experience. The inclusion of interactive digital mirrors, photo-friendly areas, and social check-ins all support this cohort's use of Subjective Norms.
- **Strategies for Generation Y:** Retailers need to work to simplify the cross-channel logistics and minimize fit uncertainty to cater to Generation Y. Modernized Buy-Online-Pick-Up-In-Store (BOPIS) systems, clear in-store sizing displays, and quick return services cater to this segment's emphasis on PBC.

Limitations and Future Research

The data used in this study is cross-sectional data, which was obtained in the Klang Valley. Longitudinal studies could be conducted in the future to see how the physical visitation intentions change with the development of virtual fitting and spatial computing. Comparative analyses of these generational dynamics would also be useful to consider the generalizability of the dynamics.

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