

Thrifting Trends: A Conceptual Framework for Online Second-Hand Shopping Using SOR Theory

Putri Zahra Azizah¹, Zuraidah Sulaiman², Nornajihah Nadia Hasbullah³, and Joe Lo Ying Tuan⁴

^{1,2}Department of Marketing and Entrepreneurship, Faculty of Management, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia, ³Faculty of Business Management, Universiti Teknologi MARA (UiTM), Melaka, Malaysia, ⁴Entrepreneurship and Enterprise Hub, Xi'an Jiaotong-Liverpool University (XJTLU), China
Corresponding Author Email: zahraazizah@graduate.utm.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i12/24191>

DOI:10.6007/IJARBSS/v14-i12/24191

Published Date: 18 December 2024

Abstract

Consumers are increasingly recognising the adverse implications of fast fashion. Consequently, consumers' enthusiasm for disposable fashion has decreased, with a growing shift towards second-hand clothing, especially among Generation Z. This conceptual paper reports the preliminary work of the research that aims to identify the characteristics that influence young consumers' purchase of second-hand clothing via social commerce sites. Particular constructs of the conceptual framework are built based on the Stimulus-Organism-Response (SOR) Theory. Utilising electronic word of mouth (eWOM) as the *Stimulus*; attitude and online engagement as the *Organism*, and purchase intention as the *Response*, this study explores how these factors interact with each other. Additionally, purchase intention is hypothesised to be moderated by ego involvement and treasure-hunting fun. This empirical study focuses on Generation Z consumers in Malaysia by gathering data through survey questionnaire. The findings are expected to demonstrate the influence of the hypothesised criteria and their relevance to second-hand clothing consumption. Thus, the practical and theoretical implications in multiple fields such as retail, sustainable fashion, textile recycling and upcycling can be given as a potential contribution from this research.

Keywords: Generation Z, Purchase Intention, Second-hand Clothing, Social Commerce, EWOM

Introduction

Global textile manufacturing has increased by 400% in the last four decades (Barber, 2021). Every year, the fashion sector releases 1.2 billion metric tonnes of carbon emissions, emits half a million metric tonnes of microplastics into the oceans, uses a projected 132 million

metric tonnes of coal and 9000 million cubic metres of water (UK Parliament, 2019), and utilises a quarter of the globally toxic substances (UN Alliance, 2021).

Due to the large amount of textile production, around 10 million metric tonnes of clothing are discarded each year across Europe and the United States, with China responsible for over 20 million metric tonnes. In contrast, Malaysia generates about 2000 metric tonnes of clothing and abandoned garments every day. Waste disposal is a concern in several Asian developing countries, notably Malaysia, where trash levels continue to increase at rates that surpass the country's capacity to handle them effectively (Malakahmad et al., 2017).

Apart from the problem of increasing clothing waste, items of clothing are used for shorter periods than in the past (Zamani et al., 2017). Enhancing consumer knowledge of the apparel lifespan and its consequences is the biggest chance for sustainable fashion (Harris et al., 2015). Adopting higher-quality clothing over fast fashion can extend apparel longevity and hence enable reuse (Degenstein et al., 2020). As a result, consumers who reduce their purchases appear to be more cautious about their choices due to ecological and ethical concerns to extend the lifespan of their clothing, and the COVID-19 pandemic likewise inspires self-assurance and encourages individuals to develop attitudes that promote sustainable fashion purchasing habits (Iran et al., 2022).

Moreover, the recent COVID-19 outbreak leads to an alteration in consumer viewpoint, resulting in businesses especially start-ups, publicly taking advantage of the potential of second-hand clothing for revenue and encouraging sustainable fashion for the first time. One of the major environmental benefits of thrifting is that it prevents clothes from ending up in landfills, where they might be abandoned for hundreds of years, causing considerable problems. During the pandemic, significant market segments in six countries change their attitudes towards apparel consumption (Chaithra et al., 2021).

Consumers in the younger demographic who also referred to as Generation Z, are critical, attentive, and extensive in their clothing selections, indicating a purposeful decision to choose clothes with sustainable features (Pencarelli et al., 2019). Despite this, environmental preservation becomes a more common shopping habit. Younger consumers are more concerned about the ecological impact of the fashion business. As a result, people become more careful and contemplate their social responsibilities before making purchases. Circular interventions, which involve selling and donating clothing for reuse, provide incentives, capabilities, and chances for these new things to be reused, donated, or remanufactured via upcycling. Wearers can accomplish it on their own if they believe they are truly knowledgeable and willing.

Young consumers become particularly committed to a brand when they examine a company's manufacturing background as well as its dedication to ethical conduct and environmental development. Consequently, people anticipate merchants to be more accountable (Gazzola et al., 2020). Sustainable and circular production, as well as consumption patterns, appeal to these consumers since they are the only ones with the ability to benefit society and the environment as a whole (D'Adamo et al., 2021). Consequently, the fundamental goal of this research is to determine the factors that influence how young consumers purchase second-hand clothing through social commerce sites.

This research has four objectives according to the problem formulated in this research, which are:

- i. To examine the influence of eWOM information adoption on attitude, online engagement, and purchase intention **(H1, H2, H3)**
- ii. To examine the influence of attitude and online engagement on purchase intention **(H4, H5)**
- iii. To measure the mediation effects of attitude and online engagement between eWOM information adoption and purchase intention **(H6, H7)**
- iv. To measure the moderating effects of ego involvement and treasure hunting fun between attitude and online engagement towards purchase intention **(H8, H9)**

Literature Review

The devastating social impact of the global fashion industry is brought to the forefront, calling traditional fashion consumption and production methods into question. To tackle these issues, ethical apparel (environmentally friendly clothing) emerges as a broad term encompassing clothes as well as behaviours that are less detrimental to people and the environment. Sustainable fashion, along with related activities such as ethical clothing, eco-fashion, and slow fashion, stresses alternative approaches to fashion and challenges the rest of the industry by suggesting that fast fashion needs to slow down (Dory, 2018).

Individual consumer conceptions of sustainable fashion differ (Henninger et al., 2016). According to multiple studies, sustainable fashion involves the entire process of ecologically aware manufacturing, consumption, and the well-being of various stakeholders, including employees, members of the public, and the environment (Cavender & Lee, 2018). Fast fashion, on the contrary, opposes sustainable fashion as it caters to consumers' needs for low prices, current trends, and rapid turnover of stock (Kim & Oh, 2020). Progressive and sustainable fashion necessitates an egalitarian clothes production approach that values long-term partnerships, promotes locally sourced items, and emphasizes transparency (Ertekin & Atik, 2014).

Throughout 2018, the Malaysian fashion industry acknowledges the issue of sustainable fashion, as numerous global corporations take tangible steps to address the negative environmental effects. Malaysian fashion prospects must remain conscious of the environmental consequences of sustainable fashion purchasing. Companies in the fast fashion garment sector often sell low-cost, stylish clothes intending to attract prospective consumers. This fosters customer connection to short-lived clothes, earning cash for the companies. Nevertheless, such addictions have significant environmental consequences (Rosli, 2018).

According to ThredUp's (2021) research findings, an increasing percentage of consumers are turning to thrift by buying used goods. The fashion resale market will be valued at \$80 billion by 2029 (Stechow, 2021). The aforementioned second-hand clothing sector is growing rapidly due to elevated demand and supply, correspondingly, because consumers are motivated by the inexpensive price of second-hand garments, and sellers may profit from selling second-hand clothing.

Second-hand clothes are mostly available in Malaysia through chain and common bundle retailers, second-hand luxury fashion consignment outlets, kiosks, and vehicle boot fairs. Malaysian second-hand clothes store mostly sell vintage and pre-owned clothing, designer names, and typical second-hand items. The term "bundle" applies to how products are packed into a single bag, which might contain a variety of pants, shirts, shorts, or blouses of varying quality and price. This term refers to establishments that sell apparel that has been abandoned by its owner and is subsequently recovered for resale. Malaysian bundle stores are said to have begun on Jalan Tuanku Abdul Rahman, also known as the Kuala Lumpur Bundle Centre. The bundle business is considered to have developed in the 1970s with the Malays, and it was expanded in the 1980s by migrants which included Indonesians, Bangladeshis, and Pakistanis surrounding Jalan Chow Kit (Kay, 2020).

Meanwhile, a trend that promotes environmentally responsible attire is expanding across the population, especially among Generation Z. Preloved shopping and thrifting are common words for buying worn clothing. Over 40% of Generation Z has bought used clothing in the previous year (Holland, 2021). According to previous research on second-hand clothes consumers in Malaysia, the majority of participants are young people who can afford the basics. Furthermore, the data revealed that individuals polled were well-educated to respond and stayed free, indicating a suitable balance between job and personal life (Kay, 2020).

Besides traditional stores, there are various online second-hand and consignment businesses where consumers may buy second-hand clothing from social media platforms or websites (Ferraro et al., 2016; Romero, 2021). In addition, during the pandemic, concerns about contamination and sanitation hamper the supply and advertising of used clothing at conventional thrift stores, although internet thrift businesses prosper. Online second-hand resale has become one of the most significant retailing trends (Seetharaman, 2021), growing four times more rapidly than its offline counterparts (Mau, 2022). Furthermore, online transactions for second-hand clothing in Malaysia are widely found on platforms such as Carousell, eBay, and Facebook (Yeap et al., 2022).

Particular constructs of the conceptual framework are built based on the *Stimulus-Organism-Response* (SOR) Theory. Firstly, *Stimulus* or *Stimuli* (S) are environmental cues that generate emotional and cognitive states in humans (Jabeen et al., 2023). Previous studies use eWOM as a *Stimulus* (Emir et al., 2016), and this also applies to how consumers apply information to foster intentions to engage in any activity or embrace any new or old technological developments. Similarly, *Stimulus* also encourage intentions to embrace any idea or conduct (Anubhav & Satish, 2016).

Following that, the *Organism* represents an individual's cognitive and emotional state, which begins shortly after they are exposed to external *Stimuli*. Individuals examine them before reacting to external *Stimuli*, and they use their intellectual and emotional abilities to consider and remember selected information (Sun et al., 2021). Previous studies highlight customer involvement (Mollen & Wilson, 2010) and attitude (Yan et al., 2018) as the *Organism*. In addition, the SOR model highlights an *Organism's* stand as a mediator between *Stimuli* and *Responses* (Perez-Vega et al., 2021).

Last but not least, Perez-Vega et al. (2021) classify behavioural *Responses* (R) as the effects of *Organisms* on persons. Behavioural *Responses* consist of psychological intentions and actions that follow (Sultan et al., 2021). As stated by Yan et al. (2018), attitudes and online consumer involvement influence purchase intention as a *Response*.

Proposed Conceptual Framework

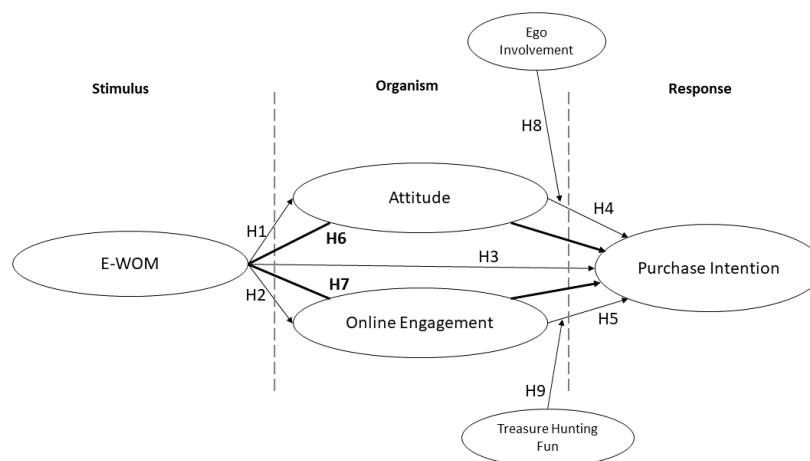


Figure 1. Proposed Conceptual Framework

Research Methodology

In this research, the conclusive structure will be used alongside the specific cross-sectional approach as the research's design. This approach will be appropriate for examining the effects of young consumers' consumption of second-hand clothes on purchase intention attributes (eWOM information adoption, attitude, online engagement, ego involvement, and treasure hunting fun). The cross-sectional research, also known as transversal, sectional, or prevalence, will have the advantage of allowing the researcher to directly observe and collecting information in a short period without the need for subsequent respondent follow-up (Zangirolami-Raimundo et al., 2018). This quantitative research project will include both forecasts and cause-and-effect analyses. Numbers and statistical information will also be used for specific factors (Apuke, 2017).

This research will focus on young Malaysian consumers who will purchase second-hand clothes on social commerce platforms. Young consumers will make up the major market for second-hand garment purchases (Yan et al., 2015), hence many young Malaysians will come to embrace second-hand clothing and ethical shopping (Johnston, 2019). Furthermore, Generation Z (those born between 1997 and 2012) and millennials (born around 1981 and 1996) will be among the groups most likely to purchase second-hand clothing (Chevalier, 2023). Nonetheless, since second-hand clothing consumption will be particularly relevant to younger consumers (Entaban, 2022), Generation Z individuals will have evolved into the age range addressed in this research.

Moreover, the number of young Malaysians intending to buy used items on social commerce platforms is still being determined. As a result, a purposive sampling approach was employed to collect data for this research. The use of purposive sampling aids in removing irrelevant replies to incompatible with the context of the inquiry. It also reduces data-collecting mistakes since the data sources are a tight match to the research environment

(Obilor & Isaac, 2023). Based on Tabachnick and Fidell (2007), the number of participants will be computed as follows:

$$\begin{aligned} \text{Variables} &= (\text{items} \times 5) + (\text{item} \times 5) + (\text{items} \times 5) \\ \text{Independent Variables} &= (22 \times 5) = 110 \\ \text{Moderating Variables} &= (6 \times 5) = 30 \\ \text{Dependent Variables} &= (3 \times 5) = 15 \\ \text{Minimum number of respondents} &= \text{IV} + \text{MV} + \text{DV} \\ &= 110 + 30 + 15 \\ &= 155 \text{ respondents} \end{aligned}$$

Within quantitative analyses of marketing and social research, a questionnaire will be used to collect statistically meaningful data on the subject (Roopa & Rani, 2012). To prevent answer bias, five-point Likert scales will be adopted in the variable measurement items. Likert scales are suitable for use in items with objective measurement, such as attitudes, opinions, or feelings that may vary in behaviour. Furthermore, Likert scales are also widely used in the marketing and social sciences fields (Bandhari & Nikolopoulou, 2020).

Table 1

Component of the Instruments

Section	Number	Description	Scale
A	1	Gender	Nominal
	2	Age	Nominal
	3	Occupation	Nominal
	4	Education Level	Nominal
	5	Range of Income	Nominal
	6	Social Commerce Sites Usage	Nominal
B	7-16	eWOM	Likert Scale
C	17-19	Attitude	Likert Scale
D	20-27	Online Engagement	Likert Scale
E	28-30	Ego Involvement	Likert Scale
F	31-33	Treasure Hunting Fun	Likert Scale
G	34-36	Purchase Intention	Likert Scale

Online questionnaires by Google Forms will be provided across Facebook, Instagram, and WhatsApp. To gain more appropriate participants, platform's relevant community will be reached out. With potential bias of participants will think of the face-to-face transactions of second-hand clothing, qualifying statement will be put before the variable questions.

To ensure the security of data provided by participants, a statement will be given in the opening section of the questionnaire regarding the privacy of answers for research purposes only and will not be given to those who do not have an interest. In addition, data will be provided anonymously and only given an ID number to ensure the confidentiality and security of participants.

A pre-test will be used to determine the effectiveness of the research instrument, with the variable under examination as a treated dependent variable (Sekaran & Bougie, 2016). As a consequence, it will be vital to ensure that the completed survey is accurate and reliable (Hair et al., 2017). The item components, wording, sequence, layout, and type, directions, and question difficulty will all be thoroughly verified during the pretesting process. Furthermore, pilot study correspondingly held in this study with data analysis of the questionnaire developed by the researcher through input in software. The outcome of pilot study then focusses on advance of wider development of the research (Eldridge et al., 2016).

For assessing the quality of research, it will be critical to use a genuine and trustworthy assessment method to evaluate such abstract concepts. As defined by Sürücü and Maslakç (2020), dependability refers to the measuring instrument's capability to consistently produce the same results under identical circumstances. This research will cover validity based on constructs (convergent and discriminant validity, among other validity forms), methods for internal coherence (Cronbach's alpha and CR), as well as reliability procedures (Cronbach's alpha and CR), all of which are critical for researchers to carry out and assess empirical research.

Data analysis will be carried out using software programmes to examine several variables and different statistics. Data evaluation tools like SPSS (Statistical Package for the Social Sciences) will provide researchers with flexibility (Jung, 2019). Descriptive data will thus be evaluated using SPSS. A statistical method known as structural equation modelling (SEM) can be used to investigate an array of relationships between several IVs and DVs as factors as well as variables (Ullman, 2012). Additionally, PLS-SEM will be used for research analysis that uses complicated structural models with a wide range of components and indicators (Hair et al., 2011). PLS-SEM will be employed to assess the relationship between the route model (theory) and data for the inductive reasoning method (Fauzi, 2022).

This research will also investigate an intermediate variable, known as the mediator, which helps to explain why or how an independent variable impacts a result. Mediation explains how an intervention influences a result by taking into account causal and temporal linkages. Subsequent studies on interventions can be more successfully directed if mediation analysis is conducted with a firm basis in prior theory and circumstances (Gunzler et al., 2013).

Additionally, the moderator variable can be used to determine the direction as well as the strength of the association among a variable that is independent or predictor and a variable that is dependent or criterion. Moderator variables are widely used in empirical investigations of consumer-related occurrences. A moderator variable influences the connection between a predictor (X) and an outcome (Y). In research, a moderating variable will require a substantial statistical relationship between its predictor and the moderating factor ($p < .05$) (King, 2013).

Conclusion

This article presents a conceptual framework to examine the attributes that influence how young consumers purchase second-hand clothes using social commerce. The theoretical framework and hypotheses are based on previous research references, considering that the studies used as references include variables of interest to this research. From the literature

review, it is anticipated that the study will reveal the relationship among the attributes of young consumers' purchase intention (eWOM information adoption, attitude, online engagement, ego involvement, and the fun of treasure hunting) towards second-hand clothes via social commerce.

Additionally, this study is expected to offer practical and theoretical implications across various fields. The findings are intended to be useful as references for practical needs, such as retail competitors in offline transactions, the development of sustainable fashion, and the need for recycling and upcycling textiles in Malaysia. Furthermore, the data produced will provide valuable references for consumers and researchers considering purchasing or expanding and developing the online second-hand clothing market.

References

- Anubhav, M., & Satish, S. M. (2016). eWOM: Extant research review and future research avenues. *The Journal for Decision Makers*, 41(3), 222–233.
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 6(11), 40–47. <https://doi.org/10.12816/0040336>
- Bandhari, P., & Nikolopoulou, K. (2020, July 3). *What Is a likert scale? Guide & examples*. Scribbr. Retrieved June 5, 2024, from <https://www.scribbr.com/methodology/likert-scale/>
- Barber, A. (2021). *Consumed: The need for collective change: Colonialism, climate change, and consumerism*. Balance.
- Cavender, R. C., & Lee, M. Y. (2018). Exploring the Influence of sustainability knowledge and orientation to slow consumption on fashion leaders' drivers of fast fashion avoidance. *American Journal of Theoretical and Applied Business*, 4(3), 90. <https://doi.org/10.11648/j.ajtab.20180403.12>
- Chaithra, G. R., Irawan, A. P., & Anggarina, P. T. (2022). Thrifting, new atlas for Indian millenials shopping. *Proceedings of the 3rd Tarumanagara International Conference on the Applications of Social Sciences and Humanities (TICASH 2021)*. <https://doi.org/10.2991/assehr.k.220404.305>
- Chevalier, S. (2023). Gen Z: Brand and product search 2015-2022. *Statista*. <https://www.statista.com/statistics/266955/gen-z-product-brand-research-channel-worldwide/>
- D'Adamo, I., Lupi, G., Morone, P., & Settembre-Blundo, D. (2022). Towards the circular economy in the fashion industry: The second-hand market as a best practice of sustainable responsibility for businesses and consumers. *Environmental Science and Pollution Research*, 29(31), 46620–46633. <https://doi.org/10.1007/s11356-022-19255-2>
- Degenstein, L. M., McQueen, R. H., McNeill, L. S., Hamlin, R. P., Wakes, S. J., & Dunn, L. A. (2020). Impact of physical condition on disposal and end-of-life extension of clothing. *International Journal of Consumer Studies*, 44(6), 586–596. <https://doi.org/10.1111/ijcs.12590>
- Dory, K. (2018). Why fast fashion needs to slow down. *UNEP*. Retrieved from <https://www.unep.org/news-andstories/blogpost/why-fast-fashion-needs-slow-down>

- Eldridge, S. M., Chan, C. L., Campbell, M. J., Bond, C. M., Hopewell, S., Thabane, L., & Lancaster, G. A. (2016). CONSORT 2010 statement: Extension to randomised pilot and feasibility trials. *BMJ*, 2(1), 64. <https://doi.org/10.1186/s40814-016-0105-8>
- Emir, A., Halim, H., Abdullah, D., Azmi, A., & Kamal, S. B. M. (2016). Factors influencing online hotel booking intention: A conceptual framework from stimulus-organism-response perspective. *International Academic Research Journal of Business and Technology*, 2(2), 129–134.
- Entaban, N. M. (2022). In Malaysia, pre-loved fashion is slowly becoming well-loved fashion. *The Star*. <https://www.thestar.com.my/lifestyle/style/2022/08/03/in-malaysia-pre-loved-fashion-is-slowly-becoming-well-loved-fashion>
- Ertekin, Z. O., & Atik, D. (2014). Sustainable markets. *Journal of Macromarketing*, 35(1), 53–69. <https://doi.org/10.1177/0276146714535932>
- Fauzi, M. A. (2022). Partial least square structural equation modelling (PLS-SEM) in knowledge management studies: Knowledge sharing in virtual communities. *Knowledge Management and E-Learning*, 14(1), 103–124.
- Gazzola, P., Pavione, E., Pezzetti, R., & Grechi, D. (2020). Trends in the fashion industry. The perception of sustainability and circular economy: A gender/generation quantitative approach. *Sustainability*, 12(7), 2809. <https://doi.org/10.3390/su12072809>
- Gunzler, D., Chen, T., Wu, P., & Zhang, H. (2013). Introduction to mediation analysis with structural equation modeling. *Shanghai Arch Psychiatry* 25, 390–394. <http://dx.doi.org/10.3969/j.issn.1002-0829.2013.06.009>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*, 2nd ed., Sage, Thousand Oaks.
- Harris, F., Roby, H., & Dibb, S. (2015). Sustainable clothing: Challenges, barriers and interventions for encouraging more sustainable consumer behaviour. *International Journal of Consumer Studies*, 40(3), 309–318. <https://doi.org/10.1111/ijcs.12257>
- Henninger, C. E., Alevizou, P. J., & Oates, C. J. (2016). What is sustainable fashion? *Journal of Fashion Marketing and Management: An International Journal*, 20(4), 400–416. <https://doi.org/10.1108/jfmm-07-2015-0052>
- Iran, S., Joyner Martinez, C. M., Vladimirova, K., Wallaschkowski, S., Diddi, S., Henninger, C. E., McCormick, H., Matus, K., Niinimäki, K., Sauerwein, M., Singh, R., & Tiedke, L. (2022). When mortality knocks: Pandemic-inspired attitude shifts towards sustainable clothing consumption in six countries. *International Journal of Sustainable Fashion and Textiles*, 1(1), 9–39. https://doi.org/10.1386/sft/0002_1
- Jabeen, F., Tandon, A., Azad, N., Islam, A. K. M. N., & Pereira, V. (2023). The dark side of social media platforms: A situation-organism-behaviour-consequence approach. *Technological Forecasting and Social Change*, 186, 122104. <https://doi.org/10.1016/j.techfore.2022.122104>
- Johnston, E. C. (2019). *Vintage fashion and instagram: How in Malaysia the app has changed the way millennials and Gen Z look at second-hand clothes and thrifting*. Retrieved from <https://www.scmp.com/lifestyle/fashion-beauty/article/3040160/vintage-fashion-and-instagram-how-malaysia-app-has-changed>
- Jung, Y. M. (2019). Data analysis in quantitative research. In *Handbook of Research Methods in Health Social Sciences* (pp. 955–969). Springer Singapore. https://doi.org/10.1007/978-981-10-5251-4_109

- Kay, A. (2020). *Solar advantages and disadvantages—Should you get solar panels installed?* Greener Energy Group. Retrieved from <https://greenerenergygroup.co.uk/blog/solar-advantages-and-disadvantages>
- Kim, Y., & Oh, K. W. (2020). Which consumer associations can build a sustainable fashion brand image? Evidence from fast fashion brands. *Sustainability*, 12(5), 1703. <https://doi.org/10.3390/su12051703>
- King, P. S. (2013). *Moderators/moderating factors*. In: Gellman, M.D., Turner, J.R. (eds) *Encyclopedia of Behavioral Medicine*. Springer, New York, NY. https://doi.org/10.1007/978-1-4419-1005-9_971
- Malakahmad, A., Abualqumboz, M. S., Kutty, S. R., & Abunama, T. J. (2017). Assessment of carbon footprint emissions and environmental concerns of solid waste treatment and disposal techniques: Case study of Malaysia. *Waste Management*, 70, 282–292. <https://doi.org/10.1016/j.wasman.2017.08.044>
- Mau, D. (2022). *As shopping preferences change, online resale shows a growth*. Retrieved from <https://fashionista.com/2017/04/online-resale-growth>
- Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, 63(9–10), 919–925. <https://doi.org/10.1016/j.jbusres.2009.05.014>
- Obilor, E., & Isaac (2023). Convenience and purposive sampling techniques: Are they the same? *International Journal of Innovative Social and Science Education Research*, 11(1), 1–7. <https://seahipaj.org/journals-ci/mar2023/IJISSER/full/IJISSER-M-1-2023.pdf>
- Pencarelli, T., Ali Taha, V., Škerháková, V., Valentiny, T., & Fedorko, R. (2019). Luxury products and sustainability issues from the perspective of young Italian consumers. *Sustainability*, 12(1), 245. <https://doi.org/10.3390/su12010245>
- Perez-Vega, R., Kaartemo, V., Lages, C. R., Razavi, N. B., & Männistö, J. (2021). Reshaping the contexts of online customer engagement behavior via artificial intelligence: A conceptual framework. *Journal of Business Research*, 129(5), 902–910.
- Roopa, S., & Rani, R. (2012). Questionnaire designing for a survey. *Journal of Indian Orthodontic Society*, 46(4), 273–277. <https://doi.org/10.1177/0974909820120509s>
- Rosli, L. (2018). *Foodpanda records 100pct growth in 2017*. New Straits Times, 1–6.
- Seetharaman, S. (2021). *How much is the retail resale market worth?. Insights on the global ecommerce and DTC businesses*. Retrieved from <https://blog.pipecandy.com/resale-market-worth/>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley and Sons.
- Stechow, R. (2021). *The rise of second-hand fashion: Opportunities of re-commerce - business model innovation lab: BMI lab: Spinoff from the university of St.Gallen*. Retrieved from <https://bmilab.com/blog/2021/2/2/the-rise-of-second-hand-fashion-exploring-the-opportunities-of-re-commerce>
- Sultan, S., El-Mowafy, M., Elgaml, A., Ahmed, T. A., Hassan, H., & Mottawea, W. (2021). Metabolic influences of gut microbiota dysbiosis on inflammatory bowel disease. *Frontiers in Physiology*, 12. <https://doi.org/10.3389/fphys.2021.715506>
- Sun, S., El-Kishky, A., Chaudhary, V., Cross, J., Specia, L., & Guzmán, F. (2021). Classification-based quality estimation: Small and efficient models for real-world applications. *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*. <https://doi.org/10.18653/v1/2021.emnlp-main.474>

- Sürücü, L., & Maslakç, A. (2020). Validity and reliability in quantitative research. *Business and Management Studies: An International Journal*, 8(3), 2694-2726.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics, 5th ed.* Allyn and Bacon/Pearson Education.
- ThredUP, (2021). *2021 resale report.* thredUP.
- Ullman, J. B., & Bentler, P. M. (2012). Structural equation modeling. *Handbook of Psychology, Second Edition*. <https://doi.org/10.1002/9781118133880.hop202023>
- Yan, R.-N., Bae, S. Y., & Xu, H. (2015). Second-hand clothing shopping among college students: The role of psychographic characteristics. *Young Consumers*, 16(1), 85–98. <https://doi.org/10.1108/yc-02-2014-00429>
- Yeap, J. A., Ooi, S. K., Yapp, E. H., & Ramesh, N. (2022). Preloved is reloved: Investigating predispositions of second-hand clothing purchase on C2C platforms. *The Service Industries Journal*, 4(3), 1–25. <https://doi.org/10.1080/02642069.2022.2127689>
- Zamani, B., Sandin, G., & Peters, G. M. (2017). Life cycle assessment of clothing libraries: Can collaborative consumption reduce the environmental impact of fast fashion? *Journal of Cleaner Production*, 162, 1368–1375. <https://doi.org/10.1016/j.jclepro.2017.06.128>
- Zangirolami-Raimundo, J., Echeimberg, J. D., & Leone, C. (2018). Research methodology topics: Cross-sectional studies. *Journal of Human Growth and Development*, 28(3), 356–360. <https://doi.org/10.7322/jhgd.152198>