What Influences Young Adult Females When Choosing an Online Apparel Retailer: An Exploratory Analysis

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Abstract

Technology is an integral part of everyday life, and its utilisation significantly influences how buyers behave when making decisions on their purchases, no matter the type of goods purchased. Therefore, it is necessary to observe how various generations of shoppers, based on technological solutions, change their shopping behaviour for different groups of products. This paper is focused on the online aspect of non-luxurious apparel shopping. Two groups of online retailers are researched: pure-play e-retailers and omnichannel retailers. The study adopted an exploratory approach, and the data were collected using semi-structured interviews among young females. In this study, we addressed and answered three research questions. The first question focused on the choice of type of online retailer - e-retailer or omnichannel. The second question was oriented to constructs of the UTAUT2 model and their relevance among young females regarding apparel shopping. The third question highlights the perspective of sustainability and environmental concerns when buying apparel online.

Keywords: omnichannel; e-retailer; UTAU2; apparel industry; fashion retail; online shopping
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Introduction

In the last ten years, the number of research papers addressing the influence of online retail on consumer behaviour change has significantly increased. The main subject areas cover Business and Management together with Computer Science, which makes up more than 40% of all research in Scopus, but the majority of research papers address e-commerce as a general concept and are trying to explain how e-commerce influences consumers, dominantly, in a non-specialised manner. There is a scarcity of research studies that focus on specific product groups and aim to explain consumer behaviour changes in specific shoppers' generations or according to the shoppers' socio-demographic characteristics. A specialised approach to the topic of e-commerce is necessary because it is known that customers' information needs and decision processes differentiate when buying different product categories on the one hand (Knezevic et al., 2021). On the other hand, their attitudes and utilisation of technology as a support to shopping processes are influenced by their age and socio-economic status. The level of education and employment status seems to be positively correlated to e-commerce. In 2022, 56 % of people with a low level of formal education bought online; this rate increased to 74 % for medium level and 88 % for individuals with higher education. While 56 % of pensioners bought online, the rate rose to 63 % for those unemployed and 81 % for employees or entrepreneurs. In 2022, 87 % of individuals aged 25-34 years who used the internet in the 12 months prior to the survey bought or ordered goods or services on the internet for their personal needs (increased 25 pp over the years). The proportion of individuals in the group 35-44 years is more often in second place behind the age group 25-34 years. In 2022, 83 % of individuals aged 35-44 years bought or ordered goods or services over the Internet for their personal needs in the 12 months preceding the survey, an increase of 24 pp compared with 2012. The largest rise was recorded by the proportion of online buyers of 16-24 years, from 53 % in 2012 to 81 % in 2022, an increase of 28 pp. (Eurostat, 2023).

Therefore, this study aims to apply such a specialised and narrowed approach. It is focused only on the apparel industry, where the revenue in EU27 amounts to €300.10bn in 2023, and the market is expected to grow annually by 2.22% (Statista, 2023). In particular, only non-luxurious fashion retail is the subject of research. On the other hand, the focus of interest is young adult females as a specific niche when discussing apparel shopping.

This study aims to outline key factors that influence the buyer's decision to choose an online apparel retailer for a particular consumer niche: young adult females.

Theoretical Background

Online retailers - definition

The study is focused on key factors which influence buyers' decisions about online apparel retailers after a short theoretical description of the main concepts used in this study. A precise explanation of online retailers is used in this study. To illustrate our division, we will provide a few well-known examples that are aligned with the topic.
In general, Online retailers can be divided into two basic groups:

- pure-play e-retailers
- omnichannel retailers

Pure-play e-retailers (classic e-retailers) are e-retailers in the narrowest sense. They are the opposite of brick-and-mortar (B&M) retailers, and they can be defined as retail businesses without a physical presence in physical outlets or other physical structures provided for buyers.

In other words, classic e-retailers usually have factory production facilities, offices, and/or warehouses for their operations, but they don't have showrooms for (potential) buyers to enable a physical "touch and feel the product" environment. Some examples of pure-play e-retailers in the apparel industry are AboutYou, Boohoo, and ASOS.

Omnichannel retailers are based on a quite complex retail concept, and the omnichannel approach is perceived as an evolution of multichannel retailing (Piotrowicz et al., 2014; Juaneda-Ayensa et al., 2016) by applying new digital channels of sales to the existing brick and mortar shopping approach or vice-versa. Omnichannel retailing is a mashup of digital and physical experiences where retailers can interact with customers through countless channels—websites, physical stores, kiosks, direct mail and catalogues, call centres, social media, mobile devices, gaming consoles, televisions, networked appliances, home services, and more (Rigby, 2011). Compared to the multichannel phase, omnichannel thus involves more channels. An important additional change is that the different channels become blurred as the natural borders between channels begin to disappear (Verhoef et al., 2015). A more detailed difference between the multichannel and omnichannel approaches is shown in Table 1.

Table 1
Key differences between multichannel and omnichannel retail

	Multichannel	Omnichannel
Channel Perception	• independent entities • separate and in competition • no switching between channels • optimising the experience with each channel • parallel using • store, website, and mobile channel	• intermingled touchpoints • integrated within a unified channel • seamless switching • optimising the holistic experience • simultaneously using • store, website, mobile channel, social media, and all other customer touchpoints
Customer	• perceived interaction with the channel • no possibility of triggering interaction	• perceived interaction with the brand • can trigger full interaction
Retailer	• no control over integration of all channels	• control full integration of all channels

Source: Mirsch et al. (2016), Piotrowicz et al. (2016), Juaneda-Ayensa et al. (2016), Shen et al. (2018)

According to Jayasingh et al. (2022), there are five omnichannel shopping methods:

- Webrooming - searching online for information before purchasing at a brick-and-mortar store
- Showrooming – checking the product in a store and purchasing a product online
- Buy online, pick up in-store (BOPIS) - buying online and then picking up at a store or kiosk
- Buy online while in-store - purchasing a product online while in the retailer's store
- Buy in-store, home delivery (BIHD) - purchase at a physical brick-and-mortar store and have the items delivered to their home or preferred delivery address

Some examples of omnichannel retailers in the apparel industry are Inditex (with brands such as Zara, Bershka, Pull&Bear, Massimo Dutti, Stradivarius, Oysho, and Zara Home), Mango, and LPP (with brands such as Reserved, House, Cropp, Mohito, and Sinsay).

As pointed out, omnichannel is a multilayered idea and approach in retail that came spontaneously with the development of technology. An omnichannel retail strategy and consumer behaviour can be researched from both online and offline perspectives. In this study, only the online aspect was considered.

Contextualising the Research Question

When developing the research question, we were interested in the situation in which the buyer is deciding to purchase non-luxurious apparel online. Buyers are faced with the choice of a type of online retailer and can decide to purchase apparel from a pure-player e-retailer or omnichannel retailer. A comprehensive literature review indicates a notable absence of research that addresses online retailing from this particular perspective. To achieve the aim of the research, based on the literature review, three research questions are proposed.

- *RQ1: What are the key factors that influence young adult females' decisions when choosing an online apparel retailer?*

The extended Unified Theory of Acceptance and Use of Technology (UTAUT2) serves as the foundational framework, providing a comprehensive structure for defining and understanding the key constructs that underpin the research question. In several research studies, tests of the UTAUT model have distilled the critical factors and contingencies related to the prediction of behavioural intention to use technology and technology used primarily in the organisational context Venkatesh et al. (2012). In other words, UTAUT is a theoretical framework designed to explain factors that influence the predicted intentions to adopt and use technology. The constructs, along with their descriptions, are shown in Table 2.

Table 2
UTAUT2 constructs with an explanation

Construct	Explanation
Performance Expectancy	the degree to which using a technology will provide benefits to consumers in performing certain activities
Effort Expectancy	expectancy is the degree of ease associated with consumers' use of technology
Social Influence	is the extent to which consumers perceive that important others (e.g., family and friends) believe they should use a particular technology
Facilitating Conditions	consumers' perceptions of the resources and support available to perform a behaviour
Hedonic Motivation	the fun or pleasure derived from using a technology
Price Value	value as consumers' cognitive trade-off between the perceived benefits of the applications and the monetary cost
Habit	the extent to which people tend to perform behaviours automatically because of learning

Source: Authors based on Venkatesh et al. (2012)

In the UTAUT2 model, the higher values of hedonic motivation will tend to be associated with higher values of behavioural intention and, ultimately, higher values

for consumer use of technology in non-organisational contexts (Tamilmani et al., 2021). In the exploratory study, we will interview young adult females regarding the mentioned components of UTAUT2 components to indicate what are the most influential factors in the case of non-luxurious apparel online retail. Not only the selection of the type of online retailer but also the intention to buy in general is influenced by the mentioned elements in the UTAUT2 model, so the second research question is oriented to this aspect, and participants of the exploratory study will be tested regarding the formation of their purchase decision. Therefore, RQ2 is as follows:

- *RQ2: Which important constructs in the UTAUT2 model affect the apparel purchase intention when buyers are young adult females?*

According to Niinimäki et al. (2020), fast fashion has increased the material throughput in the system. Fashion brands are now producing almost twice the amount of clothing today compared with before the year 2000. Current fashion-consumption practices result in large amounts of textile waste, most of which is incinerated, landfilled, or exported to developing countries. Therefore, this exploratory study will highlight the question of sustainability and environmental concerns when shoppers decide to purchase apparel online. Our focus is on examining the evaluative stance toward online shopping within the framework of sustainable development and its ecological implication, which leads to the RQ3:

- *RQ3: How is the perspective of sustainability and environmental concerns reflected in the context of online apparel shopping among young adult females?*

Methodology

As mentioned in the previous section, the research gap was found as there is a noticeable scarcity of specialised approaches to e-commerce both from the perspective of product categories and from the perspective of socio-demographic groups of buyers. Therefore, we will do a qualitative exploratory study to fill this gap. The nascent theory involves exploring phenomena through qualitative data (Edmondson et al., 2007). In this study, we adopt an exploratory approach to gain an overview of the data, select variables of interest and explore potential relations when we switch perspective from the general point of view on online shopping and e-retail as phenomena towards a particular product group (non-luxurious apparel) and a narrower niche of buyers (young adult females). This field remains uncharted in Croatia, prompting the undertaking of an initial phase of exploratory analysis.

The data were collected by using semi-structured interviews. Non-probability homogeneous sampling followed by the latest (GeoPost, 2022) e-shopping Barometer where 63% of regular women e-shoppers order fashion goods online and only 39% of men did the same. (Knežević, 2022) confirmed a similar sample in a primary study about significant differences in consumer behaviour and attitudes toward apparel products between 2018 – 2020: 68% female and 32% male, 18-40 years old. Therefore, females are selected to be observed in this study. Moreover, according to EU official statistics, individuals of the age groups 16-24 years and 25-54 years filled in the demand for online clothing with the proportion of 51 % and 49 %, respectively, of online buyers in 2022 (Eurostat, 2023).

We can observe that younger generations, in general, use online shopping more frequently and that the highest revenues online are generated in the younger adult segment. Based on this, we decided to choose young adult females as the study's subjects.

A semi-structured interview approach was employed to gather insights from a cohort of 10 participants – young adult females. The selection of participants was initiated through an initial question regarding their frequency of online clothes purchases. The cohort consists entirely of women, with 3 being students and 7 engaged in the workforce, representing a diverse range of industries. Their monthly disposable incomes vary, with 4 participants having an income of 970 euros, 3 between 971 and 1.133 euros, 2 between 1.134 and 2.000 euros, and 1 participant earning 2.000 euros. Their demographic profile indicated an average age of 29.6 years. The interviews took place in Zagreb (Croatia) between August 4th and August 9th, 2023. The interviews were designed to be comprehensive yet concise, with an average duration of approximately 30 minutes per interview. These questions were categorised into three distinct sections. The initial section aimed to garner an overarching understanding of participants' experiences, behaviours, and preferences pertaining to online shopping. The next section of the interview focused on constructs from the UTAT2 model, providing a deeper insight into their decision-making processes. The final section centred on sustainability considerations in online shopping. Transcription of each interview was conducted and maintained. These transcripts serve as the primary source of data, enabling us to carry out rigorous qualitative analysis and draw meaningful conclusions from participants' responses.

Results and Discussion

The purchase process is simplified and divided into three phases: pre-purchase, purchase, and post-purchase. In interviews, respondents were asked about apparel online shopping in all three phases. Relevant findings are summarised in Table 3.

Table 3
Key findings

	Key Findings
Pre-purchase	• internet-based information seeking • (almost) always find the information they need • often showrooming behaviour (omnichannel retailer)
Purchase	• combine retailers (importance of prices, delivery and assortment) • have preferred e-retailers
Post-purchase	• experience with product returns (positive) • main reasons for return: the wrong size, she did not like it, damaged • no fears or problems with returns
UTAUT2	
Performance Expectancy	• frequent use of the Internet for online shopping (some describe it as the only way to shop) • main reasons for online shopping: easier, time-saving, more product, no crowd and contact with staff (young)
Effort Expectancy	• better chat box • support 24/7 • visualisation of yourself in selected items
	Key Findings
Facilitating Conditions	• impact of Artificial Intelligence (AI) • positive impact of AI: customer's perspective (user support, easier decision-making, personalisation) and retailer's perspective (labour shortage)

	• negative impact of AI: customer's perspective ("too much" personalisation, personality loss, imposing ideas) and retailer's perspective (customer segmentation)
Hedonic Motivation	• the process of searching for information and the purchase
Price Value	• review the prices when they buy at e-retailer • the number of channels (and processes) depends on the product price • transition from offline to online and from one e-retailer to another can be price stimulate
Habit	• some mentioned shift in online shopping after COVID-19
ADDITIONAL	
Sustainability	• negative impact on the environment and sustainability outweighs its benefits • aware of greenwashing

Source: Authors' work

All participants mentioned that they are searching daily for information on the Internet, and almost always, they find all the information they need when considering apparel as a product category. Some of them (3 out of 10) mentioned challenges with providing information about the model, size, and material. Lack of clothes specification, "need for touch", and unavailability in the store are key drivers for showrooming behaviour. Showrooming is more common for online shopping in stores of omnichannel retailers than e-retailers. It is highly influenced by price (e-retailers) and availability in-store (omnichannel). "Need for touch" was pointed out in many scientific works (for example, Arora et al. 2018), and it implies customers need to feel the product, also known as haptic motivation.

Nevertheless, web rooming as a type of behaviour is not that common and is usual in the apparel industry (only 4 out of 10 respondents sometimes utilise this type of online behaviour). The participants have no negative experience with returns at the post-purchase process. Return policy, delivery, and frequent offers are recognised as important characteristics of online retailers. However, the respondents in their late 20s and 30s highlighted the importance of security while shopping as the determinant of retailers, which is consistent with Juaneda-Ayensa et al. (2016).

Almost all (9 out of 10 participants) give preference to pure-play e-retailers, underlining the facts of broader assortment in terms of brands and selection in general, better prices and offers, as well as the delivery process.

All participants underlined their reliance on the Internet for online shopping, with some (2 out of 10) even considering it their exclusive "place" of shopping. The primary motivations for online shopping include its convenience, time-saving nature, broader product availability, avoidance of crowds, and reduced interaction with staff. Respondents between 18 and 23 highlighted the absence of interpersonal engagement during the purchase process as a notable advantage, which is not the case for respondents aged 23 and older.

The analysis of social influence is approached from two distinct perspectives: the influence from unfamiliar individuals (Internet and social networks) and individuals with whom there is a relationship (friends and family). They are both significant, but respondents are more likely to make impulsive purchases if a clothing item is recommended by a person they know. This finding aligns with the Orús et al. (2019) research, which points out that friend recommendations reinforce preferences regardless of previous online experiences.

Facilitating conditions are explored in the context of artificial intelligence (AI) as a support for online shopping. All participants were asked about their perceptions of how AI might enhance clothing buying (and selling) and their concerns about potential negative consequences associated with AI. From a customer-centric viewpoint, user assistance, simplified choice, and personalisation are advantages of AI, while on the other side, it can impact creativity. It was observed that there is a difference in understanding between participants, whereas older respondents (25+) mentioned that AI scares them.

All participants underline that they feel joy and happiness while searching for information and purchasing clothes on the Internet. Waiting for new clothes, buying things that cannot be found in offline stores, and buying something unusual and unique are reasons that make the process attractive.

Price value is one of the key determinants in online shopping and a construct in the UTAUT2 model. This study has revealed that prices are compared at pure-play e-retailers, and a number of comparisons largely depend on the price of the clothes. However, in the context of online shopping at omnichannel retailers, the practice of price comparison is diminished due to the perception of the same prices online and offline (which was claimed by all participants). The vast majority (8 out of 10) indicated that they utilise online shopping as a cost-saving strategy. Four out of ten participants agree that price is a stimulus that can affect the change of retailer. It can be concluded that there is a habit of online shopping regardless of the type of online retailer. Participants younger than 25 mentioned a shift to online shopping during and after COVID-19.

Sustainability as a concept has evolved into one of the most important topics for today's society. In general, all participants mentioned that the negative impact of online shopping on the environment and sustainability outweighs its benefits. The focus of the answers was on greenhouse gas emissions, poor materials, and the inhumane conditions in which such clothes are produced. It was observed that the respondents younger than 25 are much more knowledgeable about the topic and are more aware of greenwashing (green advertising and PR).

Conclusion

In this study, only the online aspect of apparel shopping (non-luxurious clothes) was considered. Two groups of online retailers are researched: pure-play e-retailers and omnichannel retailers. We defined pure-play e-retailers (or classical e-retailers) as retail businesses without a physical presence for buyers. Omnichannel retailers are defined as retailers that have brick-and-mortar and online stores. The study adopted an exploratory approach.

The data were collected using semi-structured interviews, a non-probability homogeneous sample (n=10) of women with an average age of 29.6 years. The purchase process is simplified and divided into three phases: pre-purchase, purchase, and post-purchase phase. In this study, we addressed and answered three research questions. The first research question (RQ1) was focused on the choice of the type of online retailer (e-retailer or omnichannel), where 90% of participants gave preference to e-retailer over omnichannel (reasons: clothing selection, better prices, and delivery). The second research question (RQ2) was oriented to the UTAUT2 model, where results indicate that all constructs are important for purchase intention in the apparel industry, but price and performance expectancy are the top-ranked. The third research question (RQ3) highlighted the perspective of sustainability and environmental concerns in the online shopping of apparel. The focal points of responses are centred around concerns related to the emission of greenhouse gases,

materials, and production conditions. It was noticed that there are some generational differences when discussing performance expectancy (staff avoidance), facilitating conditions (AI), and sustainability (awareness and knowledge) in terms of online apparel shopping. This finding should be taken into account in future research on this topic.

The limitations of the research are (1) sample size and type, (2) geographical limitation (only Zagreb, Croatia), (3) social desirability bias and response variability, and (4) limited generalizability. Therefore, suggestions for future research are to perform exploratory research in different socio-economic groups and to compare results. Afterwards, extend the sample and perform the quantitative survey on a larger number of respondents in various countries, either in the adult female population or even in various generations of online shoppers, to be able to generalise findings for this particular product category (i.e. for non-luxurious apparel online retail).

References

1. Piotrowicz, W., & Cuthbertson, R. (2014). Introduction to the Special Issue Information Technology in Retail: Toward Omnichannel Retailing. International Journal of Electronic Commerce, 5-15.
2. Arora, S., & Sahney, S. (2018). Consumer's web rooming conduct: an explanation using the theory of planned behaviour. ASIA PACIFIC JOURNAL OF MARKETING AND LOGISTICS, 30(4), 1040-1063. doi:http://10.1108/APJML-08-2017-0185
3. Edmondson, A. C., & McManus, S. E. (2007). Methodological Fit in Management Field Research. Academy of Management Review, 32(4), 1155–1179. doi:https://doi.org/10.5465/amr.2007.26586086
4. Eurostat. (2023). Retrieved from E-commerce statistics: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-commerce_statistics
5. GeoPost. (2022). Retrieved from E-shopper barometer: https://www.dpd.com/pt/en/empresa/eshopper-barometer-2022/
6. Jayasingh, S., Girija, T., & Arunkumar, S. (2022). Determinants of Omnichannel Shopping Intention for. Sustainability, 14(21). doi:https://doi.org/10.3390/su142114109
7. Juaneda-Ayensa, E., Mosquera, A., & Murillo, Y. S. (2016). Omnichannel Customer Behavior KeyDrivers of Technology Acceptance and Use and Their Effects on Purchase Intention. Frontiers in Psychology, 7. doi:10.3389/fps.2016.01117
8. Knezevic, B., Skrobot, P., & Pavic , E. (2021). Differentiation of E-commerce Consumer Approach by Product Categories. Journal of logistics, informatics and service science, 8(1), 1-19. doi:https://doi.org/10.33168/LISS.2021.0101
9. Knežević, B. (2022). E-trgovina odjećom i obućom. In D. Ujević, & N. Knego, Organizacija proizvodnje modne odjeće s osvrtom na planiranje i distribuciju prodaje (pp. 168-179). Sveučilište u Zagrebu, Tekstilno tehnološki fakultet i Ekonomski fakultet.
10. Mirsch, T., Lehrer, C., & Jung, R. (2016). Channel integration towards omnichannel management:: a literature review. Pacific Asia Conference on Information Systems (PACIS). Chiayi, Taiwan. Retrieved from https://aisel.aisnet.org/pacis2016/288/
11. Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. Nature Reviews Earth & Environment, 1(4), 189-200. doi:10.1038/s43017-020-0039-9
12. Orús, C., Gurrea, R., & Ibáñez-Sánchez, S. (2019). The impact of consumers' positive online recommendations on the omnichannel webrooming experience. Spanish Journal of Marketing, 23(3), 397-413. doi:http://10.1108/SJME-08-2019-0067
13. Picot-Coupey, K., Huré, E., & Piveteau, L. (2016). Channel design to enrich customers' shopping experiences: Synchronising clicks with bricks in an omni-channel perspective – the Direct Optic case. International Journal of Retail & Distribution Management, 44(3), 336-368. doi:10.1108/IJRDM-04-2015-0056
14. Rigby, D. (2011). The Future of Shopping. Harvard Business Review, 64-76.

15. Shen, X.-L., Li, Y.-J., Sun, Y., & Wang, N. (2018). Channel integration quality, perceived fluency and omnichannel service usage: The moderating roles of internal and external usage experience . Decision Support Systems, 109, 61–73. doi:https://doi.org/10.1016/j.dss.2018.01.006
16. Statista. (2023). Apparel - EU-27. Retrieved from https://www.statista.com/outlook/cmo/apparel/eu-27?currency=EUR
17. Tamilmani, K., Rana, P. N., Wamba, S. F., & Dwivedi, R. (2021). The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. International Journal of Information Management, 57. doi:https://doi.org/10.1016/j.ijinfomgt.2020.102269
18. Venkatesh, V., Thong, J., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. MIS Quarterly, 36(1), 157-178. doi: https://doi.org/10.2307/41410412
19. Verhoef, P., Kannan, P. K., & Inman, J. J. (2015). From Multi-Channel Retailing to Omni-Channel Retailing: Introduction to the Special Issue on Multi-Channel Retailing. Journal of Retailing, 91(2), 174-181. doi:https://doi.org/10.1016/j.jretai.2015.02.005

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