THE ADOPTION OF MOBILE OUTFIT RECOMMENDATION APPS: A PRELIMINARY STUDY ON YOUNG USERS

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Abstract: *The present paper addresses the willingness of young consumers to adopt a mobile application designed to recommend daily outfits and wardrobe organization suggestions. As digital technologies continue to shape everyday life, young consumers are increasingly engaging in mobile solutions that support not only efficiency but also self-expression. The study aims to investigate the motivations behind the acceptance and utilization of such an application, with a focus on how technology integrates into fashion-related routines. Employing a mixed-methods approach, the research combines a quantitative survey that explores how perceptions of usefulness, ease of use, and fashion consciousness influence usage intent and a qualitative analysis of in-depth interviews with potential users. The quantitative phase gathered data from 102 participants aged predominantly 14 – 24, and the findings showed a positive attitude toward these digital tools, especially when they offer emotional value such as inspiration and creativity, alongside functional benefits like timesaving and organization. The qualitative phase explores the lived experiences and perceptions of individuals regarding the application's potential benefits, limitations, and integration into their daily routines. A noticeable gap emerges between the interest in using and the willingness to pay, highlighting the challenges in monetizing fashion-app products for younger audiences. The findings have implications for app developers and marketers in creating the design and promotion of such technologies to enhance user engagement and market penetration in a digital landscape. By connecting digital adoption with lifestyle and emotional drivers, this research contributes to a deeper understanding of how youth engage with mobile fashion technology. Future research should explore the longitudinal effects of app usage on fashion decision-making and investigate the role of social influence and personalization features in driving adoption.*

Keywords: *Artificial Intelligence; mobile fashion app, youth engagement; wardrobe recommendations.*

JEL Classification: *M31; M15; O32*

1. Introduction

Digitization is developing at an ever-increasing speed as the young people of "Generation Z" are showing interest in the usefulness of mobile applications and integrating them into everyday life, supporting free expression and style. Technology is an integrated part of young people's lives, from social networks,

journaling apps, productivity tools, to AI and fashion. In this context, apps for wardrobe organization, fashion apps and outfit recommendations or outfit combination suggestions are starting to play an increasingly visible role, combining technology, organization, time saving and creativity.
Young people use fashion as a means of symbolic communication and self-image construction (Solomon, 2018) according to the literature. With the high consumption of artificial intelligence and the complexity of mobile applications, digital solutions that promote a more organized, personalized and inspirational approach to the process of choosing outfits have started to emerge (McKinsey & Business of Fashion, 2023). This article will analyze young people's reaction to digital wardrobe applications, their expectations, motivations and the extent to which they show a sustainable attitude towards them. The study builds on the Technology Acceptance Model (TAM) (Davis, 1989), adding elements of consumer behavior to understand the value associated with these tools, not just the perceived usefulness. Both the functional elements are taken into account: productivity, organization, time saved, and the affective elements: creativity, self-expression, highlighting the emotion associated with these elements, not just their utility.
The motivation for the theme stems from the lack of addressing these trends in current research and the need to create a basis for the development of clothing applications with a focus on the person. Although mobile apps are on the rise in the fashion-tech field, research focused on understanding young consumers' behavior towards these tools remains quite limited.
Much of the studies focus on macro aspects or commercial trends and omit the micro side, where users adopt technology in their day-to-day clothing habits (Davis, 1989). It emphasizes the lack of analysis of affective components when selecting outfits, not just their utility: mood, desire for perception and highlighting identity. Thus, an outfit recommendation and organization application is not just a digital tool, but becomes a tool for expressing personality.

2. Theoretical framework and literature review

The fashion industry has been deeply influenced by digital trends lately, with an increasing number of studies referring to technology in the fashion field. “Digital fashion” means integrated mobile applications, augmented reality, artificial intelligence and real-time personalization, which is considerably more than e-commerce or advertising. Recent studies reflect the users' desire to organize their wardrobe, simulate outfits, receive suggestions and simulate all this on an avatar. (Vogt, C.A., Bao, E. & Erkip, F. (2021). The existing Smart Closet or Wearable apps already on the market are popular among Generation Z due to the advanced functions they offer: digital organization of clothes in the wardrobe and outfit generation with AI. These features denote the transformation of an intuitive act into a digitally guided process.Research conducted on Generation Z underlines the responsiveness of young consumers and their willingness to be more open to interactive applications, characterized by simple design and content tailored to their mood or daily context Hollebeek, L.D., Sprott, D.E. & Andreassen, T.W. (2024). Social networks such as Instagram, Pinterest and TikTok are influencing clothing trends, raising consumer expectations about the accessibility and interactivity of applications tailored to current trends. Outfit and clothing choice is a process of

expression influenced by affective factors pertaining to: affective dimensions, emotional drivers, psychological factors, not just a usual practical action. The authors (Li & Zhang, 2023) convey the high demand for the integration of Artificial Intelligence (AI)-based options that the recommendations offered are in tune with the context, weather, daily activities and learning the user's style. Although the demand and potential of these applications are very high, there is reluctance in the process of monetizing these applications; the younger generation wants such applications but is reluctant to pay the necessary costs for advanced features (Perry, A. (2016). However, current research is limited to the integrated analysis of functional and emotional factors influencing the usage decision. Present studies are focused on the technical side or consumption motivations, without connecting the two dimensions in the context of creating a mobile application for outfit recommendation, despite these two directions seeming to influence each other in the context of the adoption process of mobile outfit recommendation applications. Therefore, this study brings to light some answers to complete the theoretical and practical gaps by integrating a dual framework, Technology Acceptance Model formulated by Davis (1989), with elements from consumer behavior theory. mixed methods The theory defines a functional factor: utility which emphasizes the concrete benefits that the user believes will accrue and an affective factor: perceived ease of use which determines the user's intention to adopt the technology. By combining the two factors the study aims to provide an analysis of how young people are willing to adopt virtual wardrobe applications.

3. Research Methodology

In this study we opted for a mix method, analyzing the quantitative component through an online form and the qualitative component through interviews with young people from Generation Z. The chosen method helps to analyze in detail the intentions and perceptions of young people in the context of the use of mobile applications in the fashion field and gives us clarity on behavior by supplementing with qualitative data. In terms of methodological literature (Creswell, 2014; Bryman, 2016), mixing methods permits us to triangulate results and increases the credibility of findings in exploratory consumer behavior research.

3.1. Quantitative component - online questionnaire

By means of a form we collected data based on the TAM model (Davis, 1989) and elements of consumer behavior theory. The form was filled out between March 15 and April 15, 2025 via Google Form and distributed to focus groups of young people, college and high school students with a non-probability, convenience sampling technique commonly used in exploratory studies of this type (Saunders et al., 2019).

This form collected 102 valid responses with no missing values and fully completed, indicating a level of completeness of responses for descriptive analysis. The age range of the respondents is between 12 - 24 years old, balanced in terms of gender and education level: high school, college, and young employed. The age group is part of Generation Z, known for their high degree of digitization and receptivity to mobile applications (Seemiller & Grace, 2019).

The questionnaire was composed of three main sections:
1. Sociodemographic data such as age, gender and occupation
2. Items based on TAM questions regarding perception of usefulness, ease and intention of use and general attitude towards clothing organization applications.
3. Behavior and reactions to fashion and technology, questions referring to dressing habits, need for organization, sources of inspiration, interest in AI features, willingness to pay, relationship with clothes.
A Likert scale with 5 levels from "strongly disagree" to "strongly agree" was used for most of the questions in order to analyze the position of the interviewees in relation to the proposed ideas (Ajzen, 1991). There were also single or multiple-choice closed-ended questions and self-evaluation parts to analyze the frequency of different behaviors. The form had a twofold purpose: to verify young people's interest in such outfit recommendation applications and whether they are willing to pay for these features. The responses were analyzed and processed in Microsoft Excel using basic statistical tools (means, frequencies, standard deviations) to highlight response patterns and correlations between the variables analyzed.

3.2. Qualitative component - semi-structured interviews

The quantitative research was complemented by six individual semi-structured interviews with the participants who filled in the form and expressed their agreement to complete the analysis. The participants are from different spheres: women and men, students and employees, fashion enthusiasts or just moderately interested to highlight the difference between the ways of reporting to the organization, mobile applications, clothes and recommendations.
Interviews were conducted physically, face-to-face. The time allotted varied between 20 - 30 minutes, and the questions covered:

- organizing your wardrobe
- choosing your daily outfit
- using fashion applications
- useful features in an application of this type
- availability of payment

The interviews were analyzed in an exploratory way by looking carefully for repeated ideas and relevant perspectives. Participants expressed their desire related to simple usability, the desire to visualize outfits, simulating an avatar similar to the person, time-saving and sharing with other users, especially friends and close acquaintances.
These responses shape the picture obtained from the form giving a better and in depth understanding of the results.

4. Results

4.1 Quantitative analysis

Participant responses to the form emphasized the usefulness, features of an application, and availability of payment. Below are the results, together with the interpretations for the research conducted.

Participants' answers at question of whether an app that allows digitally organizing clothes and recommending outfits with AI would be useful are presented in Table no. 1:

Table 1: Interest in Using a Mobile Application for AI-Powered Outfit Suggestions

Answer	**Frequency**	**Percentage**
Yes, it would be very useful	46	45.1%
Maybe if it had advanced features	27	26.5%
Not sure	17	16.7%
No, I wouldn't use it	12	11.8%

Source: created by authors

Interpretation: 72% of respondents express direct or indirect interest in such an application confirming the potential among Generation Z. A small percentage of 11.8% express no interest. Thus, a significant openness towards the digitization of wardrobe and outfit recommendations can be observed.

The next issue tracked is the willingness to pay a price for the use of such an application and the answers are as shown in Table no. 2:

Table 2: Participant Opinions on Paying for a Mobile Wardrobe App

Answer	**Frequency**	**Percentage**
Depends on features and price	50	49.0%
No	38	37.3%
Yes	14	13.7%

Source: created by authors

Interpretation: The app is considered useful by a percentage of 20% of respondents. They are willing to pay for it, but the majority prefer the free version, even with less features. The percentage difference highlights the difficulties of monetization among young people.

As regarding the relation between dress behaviour and the outfit planning habits, the results are presented in Table no. 3:

Table 3: Clothing Behavior Related to ”in-time” Outfit Preparation

Answer	Frequency	Percentage
Yes, always	43	42.2%
Only for special occasions	36	35.3%
Rarely	19	18.6%
No, never	4	3.9%

Source: created by authors

Interpretation: A significant percentage of respondents (42,2%) use to prepare their outfits in advance, while others do it at least for important events in their lives. Very few respondents choose their outfits spontaneously. This result converges to the idea that the desire for visualization and efficient organization provided by a mobile application might come to meet a real need. Another aspect evaluated was the motivation to use this type of application, the choices were multiple choice and the results are presented in Table no. 4:

Table 4: The reasons that influence the use of an application type „digital wardrobe"

Answer	Frequency	Percentage
Inspiration for new outfits	81	79.4%
Better organization of clothes	46	45.1%
Time-saving	45	44.1%

Source: created by authors

Interpretation: The respondents' responses exceed 100% being a multiple-choice question. A high percentage of respondents (79%) were interested in inspiration for new outfits, another choice with a significant percentage was better organization of clothes (45%) and with a small difference was time-saving (44%). The choice of a high percentage of all 3 options indicates the expectation of a complete solution. These results indicate that young people are attracted to solutions that can simplify everyday life.

In order to obtain a comprehensive study, in addition to the quantitative analysis, individual interviews were conducted to define the qualitative analysis.

4.2. Qualitative perspectives - recurring ideas from the interviews

For a deeper understanding of young people's attitudes and availability to adopt a dressing mobile app, six individual participants were interviewed, purposely selected for their diversity: gender, occupation, level of education and interest in fashion. The responses were reviewed exploratorily by noticing the main repetitive thoughts and

ideas. The most frequently mentioned expectations and needs we could retain might be synthesized as four main characteristics for the mobile app:

Simplicity of the app: respondents expressed a desire for an intuitive design, clean interface, easy-to-navigate menus, neutral colors, and essential functions. These demands are confirmed by existing research in the digital area where it is emphasized how important visual clarity and simplicity in the interface is for digital interaction (Hollebeek et al., 2024; Spence, 2011). From the User Experience (UX) area that summarizes the user experience and its reactions we find that are visually rich or functional applications are quickly abandoned by Generation Z. (Imschloss & Kuehnl, 2017). Simulating outfits on an avatar: The desire to visualize clothes without the need for physical activity or clutter is seen as a useful function. The idea is supported by the extension of the concept of the digital self (Noto La Diega, 2018; Cheon et al., 2019), where technology is used to simulate and project style and identity in digital space. Time saved: respondents expressed their intention to reduce decision time and to receive outfit suggestions depending on the context: weather, activity, mood. These functions are embedded in fashion-tech and known as context-aware personalization (Travassos & Rosario, 2025; Marjieh et al., 2024). Sharing with friends: the ”sharing” function is considered a "must have", especially between couples and friends, as it emphasizes the need for validation, coordination of receiving or feedback. Generation Z puts acceptance on collaboration, digital expressiveness and transparency (Seemiller & Grace, 2019; Reflecting on One's Extended Digital Self, 2020). From the interviews, the extracted ideas supplemented the results of the survey and brought to our attention the emotional side of young people and their way of behaving in relation to their clothes and technology. There is a need for balance between utility and expression of style, an important aspect for a successful application. The 4 essential points that resulted from the interviews: the simplicity of the application, the simulation of the outfits on an avatar, the time saved, the sharing with friends reflect the clear needs of combining the 2 domains: practical and affective. Respondents want an intuitive application, a simple interface and useful functions to help them optimize the routine of preparing outfits by defining the technical side, and the emotional side is fulfilled by the desire to share with friends indicating the need for human connection and validation. These expectations combine the needs of a profile that is looking for an efficient and lifestyle-appropriate mobile application. The results define functional and emotional expectations from the younger generation. Technically, these expectations can be met in a multiplatform application available on web and mobile, built with frameworks such as Flutter or React Native, which provides fluid interfaces. The items in the wardrobe will be displayed on a white canvas and with the drag and drop function will allow the user to create outfits easily and intuitively. Outfits created can be saved in the cloud database, providing quick access to saved data at any time. Finally, this study is not only conceptual with can provide design solutions and suggestions for using a programming language that can be adapted on several versions according to the behavior of the target audience.

5. Conclusions, implications and future directions

The present study aimed to understand how young people from generation Z perceive and use mobile applications for use and recommendation of outfits, focusing on both the technical and emotional perspective. Using the Technology Acceptance Model – TAM model (Davis, 1989) explaining the willingness of people to adopt a technology if they consider it urinal and easy to use, research has integrated ideas from consumers' behavior theory to analyze the affective motivation of young people and how these tools are perceived. The results are of particular interest among young users, with an obvious appeal to digital tools that ease the process of choosing clothes and save time. However, there are considerable payment reluctances which can be a challenge for app developers. Expectations from such an application are clear: easy to use, intuitive and an avatar for simulating the outfits. The conclusions of this study consist of a starting point for developing an application based on the real expectations and needs of young users, requiring an approach that blends technology with emotion. Success in the fashion-tech field is closely related to the emotional and everyday context of young people. The practical utility of this research is valuable for mobile and web application developers in the context of understanding the needs of Generation Z audiences, a generation that has grown in the digital age and expects the technology to be intuitive, personalized and easy to integrate into everyday life (Seemiller & Grace, 2019). The limitations of this study consist in the small socio-demographic diversity of the sample chosen. A direct comparison between the preferences and tendencies described by active users of applications and the answers provided by non-users could have been useful for identifying new features required for this kind of mobile apps. Another limitation of the present research resides in the fact that the qualitative part was based on descriptive observations, lacking the application of systematic analysis techniques. A direction for further research could be the expansion of respondents from other geographical areas, interviewing people in the fashion field as well as interviewing mobile application developers. On the long run, it could be an analysis that would allow us to understand how user perceptions change in the long run, the analysis could represent a starting point that would allow us to understand how user perceptions change with constant use and how the emotional relationship and digital habits evolve.

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