

Exploring the Impact of eWOM and Online Advertising on Tunisian Women's Purchase Decisions Regarding Skin and Hair Supplements

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ABSTRACT : This study employs a qualitative approach using Python to analyze twenty-five in-depth interviews with Tunisian women who purchase skin and hair supplements. Interviews were audio-recorded, transcribed, and processed using Python-based text mining and natural language processing tools. A thematic analysis, combining automated text mining techniques with careful human interpretation, was conducted to identify overarching themes and sub-themes. Four main themes emerged: (1) trust and credibility of online information, (2) influence of digital advertising, (3) the role of social media communities, and (4) individual perceptions of risk. The findings highlight the importance of electronic word-of-mouth (eWOM), social influence, and perceived risk in shaping online purchasing decisions. Insights from this study can guide marketers and brands in designing ethical and effective digital marketing strategies while enhancing consumer trust. To the authors' knowledge, this is the first qualitative study applying Python-based analysis to examine the impact of eWOM and digital marketing on Tunisian women's beauty supplement consumption.

KEYWORDS - Beauty behavior, Dietary supplements, eWOM, Online advertising, Skin and hair health, Tunisia, Women consumers

I. Introduction

Dietary supplements are popular all over the world. Due to economic development and changing lifestyles, consumers are much more concerned about their health, well-being, and self-care. Preventive care is an important part of their daily lives. The dietary supplements market is experiencing significant growth due to the general trend towards preserving health and well-being. According to a survey conducted by Future Market Insights (FMI) in 2024, the global dietary supplement market is projected to reach a value of USD 74.3 billion in 2024 and is expected to grow to USD 170.1 billion by 2034. In Tunisia, a significant proportion of the Tunisian population regularly consumes dietary supplements, and the market for these products is growing steadily. In fact, the revenue in the Vitamins & Minerals market in Tunisia for the year 2024 amounts to US\$32.29m. It is projected that the market will experience an annual growth rate of 5.92%.¹ Digital platforms, such as social networks and e-commerce sites, have dramatically changed the way consumers make purchasing decisions. Dietary supplements have often been advertised on Facebook and Instagram with discount codes, promising supplement names and

¹ <https://www.statista.com/outlook/hmo/otc-pharmaceuticals/vitamins-minerals/tunisia>

promises of effectivity, and have often been presented as a miracle solution [1]. In this context, the influence of the eWOM and online advertising is becoming a determining factor in consumer behavior.

To gain a better understanding of this phenomenon, this study utilizes the consumer decision process theory. This theory outlines the stages an individual goes through before, during, and after a purchase [2]. [2] look at the problem-solving process as a whole and try to identify stages, while realizing that solving problems can be different depending on the task. [2] identify need recognition, information search, evaluation of alternatives, purchase decision, and post-purchase evaluation as stages in the decision-making process. As important as the role of digital platforms has become in consumer decision-making, especially in areas such as dietary supplements, much of the research so far has focused on the phenomenon being studied here in developed western countries (as opposed to Tunisia), including Europe, North America or Asia ([3]; [4]; [5]; [6]; [7]). Furthermore, there has been scant research on the impact of eWOM (Electronic Word Of Mouth) and online advertisements on the buying process in Tunisia. This is a significant gap in the literature, particularly given the high rate of digital technology and social networks adoption among consumers in Tunisia, and how increasingly consumers are persuaded by online reviews and advertising during their choice activity and decision process on Facebook and Instagram.

In these terms, the present study aims to investigate electronic word-of-mouth (eWOM) and online advertising, especially via social networks, in the consumer decision-making process of purchasing dietary supplements for hair and skin health among Tunisian females. More specifically, the study aims to assess how eWOM and online advertising influence the various stages of the decision-making process, i.e., need recognition, information search, and evaluation of alternatives. Based on qualitative data from Tunisian women who consume dietary supplements for hair and skin health regularly, the current study will contribute to the research gap as outlined in the previous sections. Accordingly, the current study's overall research question is: *What is the role of eWOM and online advertising in shaping the consumer decision-making process for skin and hair supplements among Tunisian women?*

The present article is structured in a sequential manner, in which the introduction section details the study contextualization, research gaps, and then the literature review, theoretical framework, methodology, results, discussion, and conclusion, theoretical and empirical implications, and finally a research agenda for future direction.

II. Literature Review

The consumer buying process has evolved considerably with the increasing role of digital technology in consumers' lives. Today, it is possible to buy the majority of products or services online, without any physical contact with a salesperson. As a result, factors such as eWOM and online advertising play an important role in purchasing decisions, particularly in the dietary supplements industry. This literature review examines recent research on the impact of these two key elements on consumers' purchasing decisions. In the e-commerce business, electronic word-of-mouth (eWOM) is a form of marketing that is focused on contact between individuals through the internet. It is considered an interpersonal source of information that connects consumers and pulls them away from the power of marketers [8]. The eWOM can be done through several online platforms such as Facebook, Instagram, Pinterest, and Youtube. [9] note that eWOM represents an upgraded version of traditional interpersonal communication in the digital world.

Advertising is a form of communication used to persuade a specific group of people to undertake a new action [10]. This strategy is usually applied in the form of promotional material by a sponsor and is disseminated through a variety of traditional media such as television, commercials, radio, newspapers, magazines or modern media such as blogs, websites, and text messages. With technological development and the move away from digital platforms, advertising has become more ubiquitous and stronger in its impact and effect. Internet advertising refers to a method used by commercial actors in using the Internet to place an advertisement or campaign to promote the marketplace, or otherwise, internet-based advertising using digital technology as a production and publishing tool. According to [11], in online purchases for dietary supplements, due to the lack of professional advice from pharmacists, eWOM has become an important source of information for consumers to make purchase decisions. The major advantage of online advertising is the quickest promotion of product information all over the globe due to the internet. It includes banner ads, search engine results pages, social

networking ads, email spam, online classified ads, pop-ups, contextual ads, and spyware [10]. A study by [12] looked at the effectiveness of using digital platforms to promote health supplements in Owerri. The study revealed that 69.3% of participants believed that advertising via digital media increased sales of health supplements, and 66.3% of respondents believed that digital media were effective in advertising such products.

A parallel study, this time coming from India [13] suggested that advertisements are more effective when they are individualized, personalized according to user preferences, as well as utilizing testimonials, reviews, and online recommendations. In addition, [11] investigate the eWOM's effect on online sales in the use of dietary supplements. The authors establish an eWOM-based sales prediction model in which they highlight the importance of product rating, total number of reviews, and favorites positively associated with sales. In fact, the easily accessible eWOM from online platforms can be used to evaluate effects and predict sales. In this context, the study of [14] conducted in Malaysia identified that eWOM and brand image significantly influence the consumer purchase intention for health products, including dietary supplements. A similar study [8] examining the role of brand image in the relationship between eWOM and the purchase intention of dietary supplement consumers proved that brand image can moderate the effect of eWOM on the purchase intention of Malaysian dietary supplement consumers. In fact, the e-WOM quality, e-WOM quantity, and sender's expertise have a significant relationship with consumer purchase intention. However, brand image does not moderate the effect in the association between e-WOM quality, e-WOM quantity, as well as sender's expertise and consumer purchase intention [8].

III. Theoretical Framework

The Consumer Decision-Making Process is the fundamental theory of the stages customers go through when considering a purchase. Consumer decision-making process consists of five stages : The acknowledgement of a product or service need, The research of product options, The evaluation process, The consumer reflect on their purchases. This process begins with the acknowledgment of a need for something or a desire to purchase a product or service. This acknowledgment of need or desire can arise from either an internal or an external stimulus. In the context of dietary supplement consumption, this need may stem from a perceived problem (fatigue, nutritional deficiencies, hair loss) or from a desire to improve health or well-being (boosting immunity, improving sporting performance). Moreover, the increase in disorders linked to modern lifestyles (stress, poor diet) is prompting consumers to look much more closely for practical solutions to maintain their health.

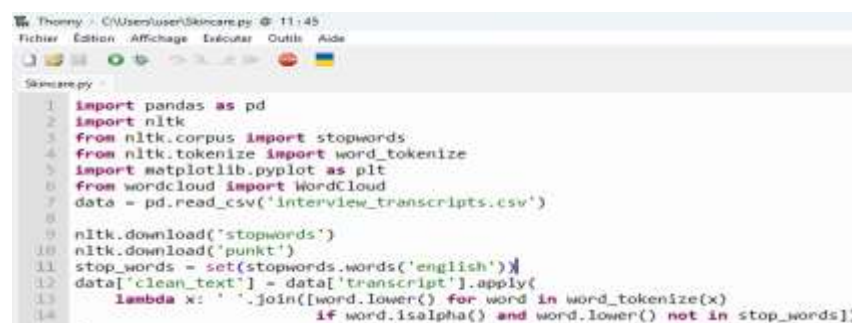
Once the need is identified, the consumer starts to research the offerings available on the market. In this process, consumer usually tend to gather as much information as possible either by contacting their friends and referring to their experience or by relying on research for testimonials and reviews. At the evaluation stage, the consumer starts to evaluate available options and compare them with similar offerings from different retailers. Consumer actually might go to some stores to experience psychically and see what the item is like. The outcome of this stage is that here consumer decides which option suits him best and makes his mind. In the purchasing stage, consumers buy the item, or he can might make an online transition by paying online. The fact in either way he buys it and once the item is delivered, and consumer starts to use it. After buying the product or service, the consumer evaluates both it and the organization from which it came. If he feels that his purchase was useful, he may engage further by leaving a review on social media, recommending the product or service to others, or returning to the brand for future purchases.

IV. Methodology

The aim of this study is twofold. First, it seeks to understand how Tunisian women engage with electronic word-of-mouth (eWOM) when purchasing skin and hair supplements. Second, it explores the influence of online advertising on their purchase decisions. To achieve these objectives, a qualitative approach was employed. Given the study's focus on understanding consumers' lived experiences, perceptions, and behaviors, in-depth semi-structured interviews were selected as the primary data collection method. This approach enabled the collection of rich, nuanced insights into the factors shaping purchase decisions, particularly within the context of online reviews and advertisements.

A total of twenty-five Tunisian women, aged between 18 and 65 years and who regularly consume dietary supplements for skin and hair health, were recruited through purposive sampling. This sampling strategy ensured diversity in age, occupation, and socio-economic status, providing a holistic view of consumer experiences. Each interview lasted between 30 and 60 minutes and was conducted either in person or through online communication platforms such as Messenger or WhatsApp, depending on participant convenience. All interviews were audiotaped with consent, and subsequently transcribed verbatim for analysis.

Thematic analysis was adopted to identify patterns and recurrent ideas emerging from the transcripts. Unlike previous studies that relied on NVivo for qualitative data analysis, this research utilized Python programming for text mining and thematic coding. All Python analyses were performed using the Thonny IDE. Python offers a transparent and replicable analytical framework, allowing the researcher to preprocess and analyze qualitative data efficiently through open-source libraries such as NLTK, pandas, and matplotlib.

The image shows a screenshot of the Thonny Python IDE. The title bar indicates the file path is 'C:\Users\user\Skincare.py' and the time is 11:45. The menu bar includes 'Fichier', 'Edition', 'Affichage', 'Exécuteur', 'Outils', and 'Aide'. The toolbar contains icons for file operations and execution. The main editor window shows a Python script named 'Skincare.py' with the following code:

```
1 import pandas as pd
2 import nltk
3 from nltk.corpus import stopwords
4 from nltk.tokenize import word_tokenize
5 import matplotlib.pyplot as plt
6 from wordcloud import WordCloud
7 data = pd.read_csv('interview_transcripts.csv')
8
9 nltk.download('stopwords')
10 nltk.download('punkt')
11 stop_words = set(stopwords.words('english'))
12 data['clean_text'] = data['transcript'].apply(
13     lambda x: ' '.join([word.lower() for word in word_tokenize(x)
14                          if word.isalpha() and word.lower() not in stop_words])
15 )
```

Figure 1. Example of a Python script for preprocessing interview transcripts

The analytical workflow (see Fig. 2) consisted of several stages:

1. Data preprocessing, including cleaning and tokenization of interview transcripts.
2. Word frequency and co-occurrence analysis to identify dominant concepts related to eWOM and online advertising.
3. Visualization, using word clouds and bar charts to illustrate the most frequent words and emerging clusters.
4. Thematic grouping, where repeated words and contextual meanings were manually reviewed to generate higher-order themes and sub-themes.

This process allowed the emergence of central categories such as *trustworthiness and credibility*, *influence of social media advertising*, and *perceived product effectiveness*.

Ethical considerations were fully observed throughout the study. Participants were informed about the purpose of the research, their right to withdraw at any time, and the confidentiality of their responses. Personal data were anonymized and securely stored, accessible only to the research team. Direct quotations from participants were incorporated into the analysis to preserve authenticity and provide deeper insight into their perspectives. Overall, the integration of Python into the qualitative analysis provided a systematic, transparent, and replicable approach to identifying the key themes shaping Tunisian women's engagement with online beauty advertising and eWOM in their purchasing decisions for skin and hair supplements.

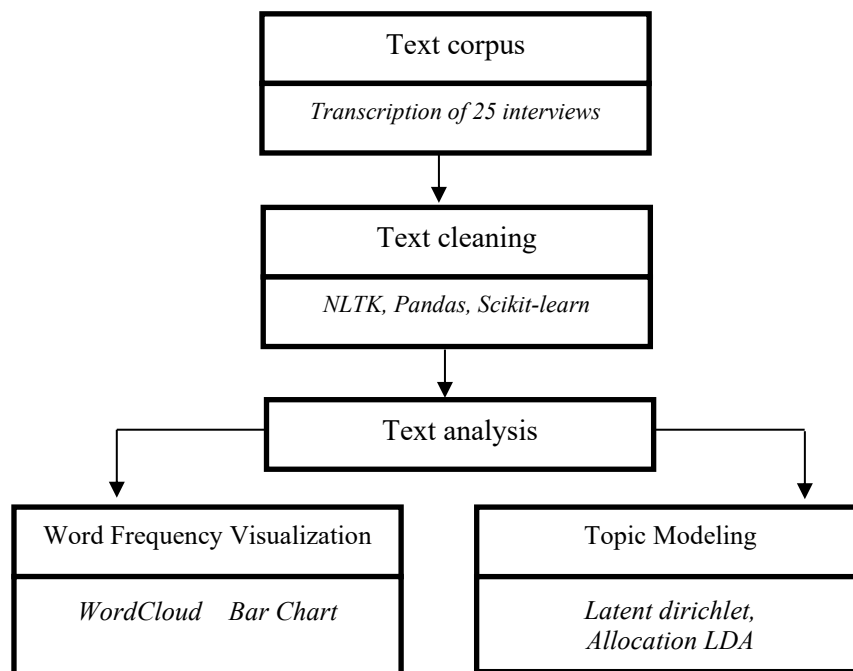


Figure 2. Workflow for Qualitative Data Analysis Using Python

This figure illustrates the analytical workflow applied in the present study. The process begins with the transcription of 25 interviews into a text corpus, followed by text cleaning and preprocessing using Python libraries (NLTK, Pandas, Scikit-learn). The cleaned text is then analyzed through word frequency visualization (WordCloud and Bar Chart) and topic modeling (Latent Dirichlet Allocation, LDA), which generated the four main themes identified in the study. Although word frequencies were generated and visualized, only the thematic interpretations relevant to the research questions are reported in the results.

V. Results

This section presents the findings of the qualitative analysis conducted on the transcribed interviews using Python. The 25 interview transcripts were first preprocessed and cleaned using Python libraries, including NLTK, Pandas, and Scikit-learn. To identify key patterns in the data, word frequency analysis and n-gram extraction were performed, highlighting the most recurrent words and expressions across the corpus. Topic modeling using Latent Dirichlet Allocation (LDA) further allowed the extraction of overarching topics, which were interpreted as the main themes of the study. Specific words and clusters within each topic were then analyzed to delineate sub-themes, providing a nuanced understanding of the factors influencing the consumption and purchase decisions of skin and hair supplements. This approach resulted in the identification of four primary themes, each encompassing several sub-themes.

TABLE 1. Summary of qualitative analysis themes and sub-themes

Themes	Subthemes	Examples of verbatim
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Influence of Online Beauty Advertising	Visual storytelling and beauty ideals	"Seeing beautiful hair or glowing skin in ads influences my decision; I want to look like that too." (D)
	Personalized advertising and product targeting	"I continue to receive advertisements for hair supplements specific to oily hair, and it makes me want to try them." (E)
	Discounts and promotions	"Special promotions always get my attention, especially products I was already planning to buy." (F)
Trust and credibility of online beauty information	Trustworthiness and credibility of beauty-related content	"I research supplements, skin or hair, online, and read multiple reviews, and I ask various dermatologists to ensure they are safe and effective."
	Authenticity of user experiences	"When I see real women posting their before-and-after results, I trust the product more than when it's just an ad." (B)
	Engagement with beauty influencers	"I follow several Tunisian beauty bloggers and usually buy the supplements they recommend if I see consistent results." (C)
Social Media Beauty Communities	Peer recommendations and shared beauty tips	"I trust the advice I read in women-only Facebook groups; most of my supplement choices come from there." (G)
	Sharing before/after experiences	"I often check Instagram hashtags for skin supplement results to see if it works before buying." (H)
Perceptions of Beauty-related Risks	Concerns about side effects or ineffectiveness	"I'm always afraid of allergic reactions, so I only buy well-reviewed skin supplements." (I)
	Trust in expert or medical recommendations	"I have a preference for supplements recommended by dermatologists or pharmacists, rather than just influencers." (J)

VI. Discussion

This study aimed to understand how Tunisian consumers engage with eWOM and online advertising when purchasing skin and hair Supplements. The findings align with previous research on this topic, highlighting electronic word-of-mouth as the primary factor influencing purchase decisions. Many participants reported relying heavily on eWOM, such as influencer recommendations and peer reviews on platforms like Facebook and Instagram, to reduce doubts and ensure safe purchases. This result corroborates the work of [9], who argue that eWOM, due to its accessibility and perceived credibility, significantly shapes consumers' purchasing decisions. They further emphasize that eWOM not only raises awareness of new products or services but also motivates satisfied consumers to share their experiences, thus perpetuating a continuous cycle of influence. Moreover, these authors identify three key factors that enhance the effectiveness of eWOM: source credibility, information richness, and cultural context.

Likewise, [15] conducted a study on how eWOM was influential for online buying decision-making for British consumers in the online vacation industry, and it revealed that positive eWOM by satisfied users could help alleviate uncertainty and perceived risk of dissatisfaction. In the context of dietary supplements, [16] found that their use became popular with extensive advertising on social media and endorsements from celebrities. Similarly, [17] indicated that perceived eWOM trustworthiness had a strong influence on Saudi adolescent girls' attitudes toward dietary supplements and intention to buy dietary supplements.

The participants perceived that reviews from authentic users were likely to be believable because they were indicative of lived experience. Likewise, [18] discovered that online reviews from authentic users influenced purchasing intentions, in which negative reviews caused users to refrain from purchasing, as well as which positive reviews also caused users to accept a willingness to trial the products in Thailand. In determining the way in which eWOM shaped consumer purchasing intentions for commercialized indigenous fruit products in Zimbabwe, [19] noted that there were also strong influences of information quality, source credibility, information usefulness, and information adoption by consumers behavior.

These findings mirror the findings of the present study, in which Tunisian women were heavily reliant on credible eWOM and internet advertising to aid their dietary-supplement purchase decision-making related to skin and hair health.

Our findings also align with those of [20] and [21]. The first authors highlighted that online advertising and electronic word-of-mouth (eWOM) positively shape brand image and influence consumer purchases. Likewise, [21] confirmed the significance of eWOM on consumers' purchase intentions and established that brand image has a mediating effect. Consistent with this approach, [22] explored how online advertisements influence purchase decision and behaviors, indicating that advertising creativity, return on investment (ROI), product quality, and celebrity endorsement contribute to guiding consumers' purchasing tendencies. The study of [22] study found that positively combining these variables leads to greater brand loyalty, further promoting the product.

Nevertheless, our findings are in some way inconsistent with the findings of [21], which discovered that eWOM only partially mediated the marketing mix factors related to women's purchase intentions on dietary supplements for their children in Jordan. The Consumer Decision-Making Process theory provides a framework for understanding how Tunisian women approach the five stages when purchasing dietary supplements that promote hair and skin health. It appears that eWOM and online advertising intervene in each step of the consumption process, particularly the usage of online testimonials and recommendations that have established themselves as reliable sources of information where consumers build perceptions of quality, trust of the products. Online advertising reinforces their findings as opportunities to create specific beauty or health concerns, such as skin dullness or hair loss, and raises the need for recognition. These findings illustrate how eWOM and online advertising work together in the purchasing decisions of Tunisian women consumers. While they do not represent simply persuasive modes of influence, eWOM and online advertisement, as in our model, act in concert in the Consumer Decision-Making Process, reaffirming the importance of the broader theoretical framework in examining consumer behavior in a digital context.

Furthermore, this study has further implications for social and digital marketing professionals, especially those within the dietary supplements industry that cater to women's hair and skin health. The findings are certainly context-dependent on a developing economy like Tunisia, where skin and hair Supplements are still viewed as a new sector, though the findings may also be relevant for other developing nations and possibly developed markets where the dietary supplement market is growing explosively.

The study discussed how eWOM and online advertising contributed to each stage of the Consumer Decision-Making Process, from problem recognition to post-purchase behavior. This provides timely insights for digital marketing professionals, which are essential for developing awareness, knowledge, and recognition of the underlying drivers impacting women consumers' decision-making. This understanding of women consumers can be used to design responsible and more targeted marketing strategies, while also distinguishing the brand and fostering consumer trust in highly competitive markets.

Theoretically, this study advances the Consumer Decision-Making Process model by demonstrating the omnipresence of eWOM and online advertisements through all stages of the purchasing process, in the subject of

beauty-related nutritional supplements. Future research can examine these components in other categories of the nutritional supplement space, such as sports nutrition or healthy living, or even conduct a longitudinal study in other Arab and North African countries to determine whether these findings are universal or reflective of particular cultural or contextual dimensions.

VII. Conclusion

Theoretically, the study demonstrates how these digital factors affect every stage of the purchasing process journey from need recognition to (i) evaluating alternatives, (ii) making the final decision, and (iii) the post-purchase evaluation stage. To summarize the findings, our study reveals that eWOM and online advertising can both act as strong levers to influence consumer behavior in the skin and hair supplements context when consumers search for information. Further, social networks can act as the focal point for brand awareness, credibility, and trust in dietary supplements while altering consumers' risk perception around this subject.

This research highlights that the ways that consumers engage with external experiences (e.g., reviews, recommendations, shared experiences, etc.) fundamentally influences the person's evaluation of trust and satisfaction with the product. Therefore, these findings illustrate that the digital environments are valuable to the consumer's choices, especially when social behaviors and personal recommendations play a significant role in the decision process. Once brands effectually understand the distinction between eWOM and online advertising, they can more effectively gauge consumer expectations in the beauty-related dietary supplement market, thus building trust in a confusing and at times, an ambiguous environment for consumer decision-making. In conclusion, this study has provided a holistic understanding of digital communication channels in shaping the consumer journey in Tunisia. This study highlights the intersections and omnipresent qualities of eWOM and online advertising as they shape the decision-making process of the consumer. These findings not only expand academic understanding of consumer behavior in emerging markets, but also provide implications for practitioners seeking to create more credible, effective, and consumer notable digital marketing strategy.

7.1 Theoretical, Managerial, and Research Implications

This study contributes significantly to the theoretical literature by extending the Consumer Decision-Making Process framework to the context of beauty-related dietary supplements in emerging markets. While previous research has primarily focused on general consumer goods, this study emphasizes that eWOM and online advertising play a pervasive and integrated role in shaping women's perceptions and decisions across all stages of the process. The findings suggest that eWOM is not only a passive source of information but also an active driver that triggers the recognition of needs, influences evaluation, and shapes post-purchase behaviors through shared experiences and testimonials. Additionally, the study employed thematic analysis using Python to systematically identify and categorize recurring patterns and themes within consumer responses, enhancing the rigor and transparency of the qualitative analysis.

For marketing practitioners, especially social media and digital marketers targeting the dietary supplement sector, the results offer actionable insights. Marketers can leverage authentic eWOM by encouraging satisfied customers to share detailed reviews and testimonials, particularly in colloquial and relatable language that resonates with the target audience. Additionally, online advertising strategies should integrate influencer endorsements, interactive explainer videos, and culturally adapted messages to enhance credibility and product differentiation. These insights are valuable not only in Tunisia but also in other emerging markets with similar consumer dynamics, and even in developed countries where dietary supplement use is rising rapidly among women seeking beauty and health enhancements.

This study makes a valuable contribution to the theoretical literature, which extends the Consumer Decision-Making Process conceptual framework to the specific context of beauty-related dietary supplements in emerging markets. Previous research has emphasized general consumer goods, and this focused study shows how important eWOM and online advertising is integrated throughout women's perceptions and decisions across the process, as eWOM is also an active triggering purpose of the consumer decision-making process due to the

processes recognition of needs, evaluation, and post-purchase behaviors influenced by shared experiences and testimonials.

For marketers (particularly social media and digital marketers representing dietary supplements), the results are applicable. Marketers can find ways to leverage authentic eWOM, for example, by encouraging satisfied customers to share elaborated reviews and testimonials in consumer-friendly and relatable language. Marketers can also develop online advertising campaigns that include apparent influencer endorsements, interactive explainer videos, and narratives that have been proportionately adapted depending on cultural context to increase perceptions of consumer credibility and important for differentiation of products, particularly in markets like Tunisia and other emerging markets with properties similar consumer behaviors, and even in developed countries that are seeing considerable growth in consumption of dietary supplements especially among women seeking general enhancements of their health and beauty. In addition, this research highlights the need for considering ethical aspects in digital marketing practices: Transparency, honest representation of product benefits, and measures taken to address and respond to adverse reviews are key aspects in preserving consumer trust and long-term brand loyalty. One theoretical implication is recognizing the potential opportunity to explore the effect of eWOM and online advertising, along with factors related to self-efficacy, body image, and cultural ideals of beauty, on overall dietary supplement consumption.

7.2 Limitations

This study presents several opportunities, but it also has limitations. First, the qualitative research design, based on in-depth interviews with 25 purposively sampled Tunisian women, limits the generalizability of the findings to wider populations or demographic groups, including other Tunisian women. Second, as the data relied exclusively on self-reports, potential sources of bias may have influenced the results, such as social desirability bias, recall limitations, or participants' tendency to present their consumption behavior in socially acceptable ways. Third, the study focused solely on skin and hair supplements, excluding other dietary supplement categories (e.g., general wellness, weight control, or sports nutrition) that may involve different consumption contexts and determinants. Fourth, while efforts were made to generalize from culturally specific contexts, the socio-cultural factors and ideologies unique to Tunisia may differ from those in other Arab, African, or global contexts. Finally, although Python-based text mining and topic modeling facilitated the identification of themes and patterns, computational analysis may not capture all nuances, subtleties, or contextual meanings, making human interpretation essential.

7.3 Future Research Directions

Future study can be planned in a few ways that would mitigate anything discussed above. First, using a quantitative or mixed-method design will allow for validation of these qualitative observations on a larger, more statistically representative sample, and allow typologies to be generalizable. Researchers can also look into the role of eWOM and online advertising in other dietary supplement categories like vitamins for general immunity, or sports nutrition products, or even weight management products, to compare behavioral drivers across categories.

Researchers might also look into comparative studies amongst male and female consumers, or examine between groups separated by age or socio-economic class, to generate a clearer picture of the influence of digital communication towards health-related consumption decision making. Cross-cultural research in other Arab countries, or Sub-Saharan Africa, or even North Africa, might determine the universality of these findings, and expose cultural nuances which could impact eWOM credibility, or online advertising, and ultimately, decision-making. In the end, future studies would also incorporate psychological constructs such as perceived self-efficacy or risk perception, and could consider cultural beauty norms to create models that develop comprehensive understandings of dietary supplement consumption during the digital age.

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