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Terminology Consistency in English-Arabic Women's Garment Translations on SHEIN and Amazon in KSA: A Comparative Analysis

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ABSTRACT

The e-commerce industry in Saudi Arabia is growing rapidly, making this research essential. Inconsistent translations may lead to consumer misunderstanding, lost sales, and a reduction in platform trust, highlighting a significant flaw in localization methods. This study evaluates the consistency of English-to-Arabic translations of women's garment terminology on the e-commerce platforms SHEIN and Amazon KSA. The research employs qualitative, product-focused comparative content analysis. Sixty product descriptions (tops, dresses, and bottoms) were chosen at random from SHEIN and Amazon KSA. Every description was analyzed and categorized according to 12 predefined categories, including style coherence, borrowing methods, and language diversity. Original product descriptions were saved as screenshots, and manual coding was verified for consistency to ensure the accuracy of the data. The findings revealed that SHEIN exhibits a higher frequency of translation inconsistencies compared to Amazon, directly addressing the first research question by identifying discrepancies such as inconsistent terminology (e.g., "pants" translated as ([سروال/بنطال/بنطلون] {dir="rtl"}) and conceptual mismatches. These results addressed the second research question by demonstrating how limited databases of Arabic fashion terminology and structural differences between English and Arabic pose challenges for machine translation models, especially when considering dialectal and grammatical nuances. This study contributes to the fields of e-commerce translation and localization research by (1) empirically analyzing the limitations of machine

translation in Arabic fashion terminology, (2) proposing practical improvements such as standardized glossaries and streamlined post-editing processes, and (3) highlighting the need for Scopus-based practices to ensure that translations meet user needs.

Keywords: English-to-Arabic Translation; Women's Garment; Inconsistent Terminology; E-Commerce; Machine Translation; Localization

1. Introduction

In the online apparel market, accurate and consistent terminology is essential for effective communication and customer satisfaction [1]. Many global electronic commerce (e-commerce) platforms, website and mobile application, rely on machine translation (MT) for product descriptions when localizing their platforms. In some cases, this reliance can lead to inconsistent translated terms. This inconsistency may confuse and frustrate consumers, potentially resulting in lost sales and a negative perception of a company that fails to consider linguistic nuances [2]. Despite the reasons behind this, maintaining consistency in product description translations is crucial [3,4].

Accordingly, this study aims to analyze and evaluate the consistency of English-to-Arabic translations of women's garment terminology on e-commerce platforms, specifically within a comparative analysis of SHEIN and Amazon in the Saudi market. These platforms were selected because of their popularity with Saudi consumers. In 2024, SHEIN was listed among the top five e-commerce sites in the Saudi apparel market, and by February 2025, it emerged as the most visited website for apparel and fashion in Saudi Arabia. Meanwhile, Amazon held the title of the most visited retail website in 2024 [5,6].

Specifically, this study addresses two key questions:

1. What types of discrepancies in garment translations can be identified between the two platforms, SHEIN and Amazon?
2. How do these translation inconsistencies reveal limitations in machine translation models for Arabic fashion terminology?

Answering these two questions may deepen our understanding of translation consistency from English to Arabic on e-commerce platforms. The findings could lead to improved translation tools and practices, established guidelines for garment terminology, and enhanced user ex-periences through clearer and more consistent product descriptions. This study makes three significant contributions that advance the fields of e-commerce localization and Arabic translation studies. First, it represents the first systematic empirical comparison of translation consistency between two major e-commerce platforms (SHEIN and Amazon KSA) in the Arabic context.

2. Literature Review

In the dynamic world of e-commerce, particularly in the fashion industry, consistent terminology and accurate language are key players in effective communication during business transactions. When consumers receive information in a language they understand and are familiar with cultural references and social norms, the interaction will have a positive impact on the business relationship. As globalization continues to get fashion businesses closer, understanding how various e-commerce platforms handle the translation of women's garment terminology becomes crucial.

2.1. Importance of Consistent Terminology in E-Commerce

Terminology can be defined as both a science of objects and a science of terms. It is a field that requires a prior understanding of the conceptualization within a specific subject area, and the linguistic expressions used to designate these underlying concepts [7]. In translation, consistent terminology refers to the uniform use of specific terms and phrases throughout a translation, ensuring clarity and coherence in conveying the intended meaning [8].

E-commerce is the buying and selling of products and services over the internet, encompassing various forms of online activity. One significant model within this framework is Business-to-Consumer (B2C). This model involves direct transactions between companies and consumers. For example, when a customer orders clothing from a brand's online store, they are engaging in a B2C transaction. In the

B2C model, businesses provide products to customers online for their personal use [9]. As e-commerce continues to expand, so does the demand for proper localization—the process of adapting content and language to meet the cultural and linguistic preferences of a specific target market [9]. One of the online primary components that is included in localization for e-commerce is product description. Therefore, consistent terminology is crucial for accurately representing products, as it directly influences consumer understanding and purchasing decisions. As e-commerce continues to expand, so does the demand for proper localization—the process of adapting content and language to meet the cultural and linguistic preferences of a specific target market [10].

Second, the study introduces an innovative methodological framework that bridges theoretical and applied translation studies. Unlike traditional analyses, Dweikat's study [4] as an example, examined translations in isolation. The current study's approach integrates Skopos theory [11] with contemporary research on machine translation limitations. This dual perspective allows us to evaluate not just linguistic accuracy but also functional adequacy—how well the translations serve their intended purpose for Arabic-speaking consumers. By analyzing platform-specific approaches, we reveal how Amazon's investment in NLP yields more standardized terminology compared to SHEIN's reliance on general MT, which struggles with Arabic's syntactic and dialectal complexities.

Third, the study moves beyond theoretical critique to propose actionable solutions for industry practitioners. Building on Naveen and Trojovsky's [8] identification of Arabic MT challenges, we develop specific recommendations for a *standardized Arabic fashion glossary* that accounts for regional dialect variations. This practical output directly addresses the terminology fragmentation plaguing Arabic e-commerce localization—a problem exacerbated by the lack of domain-specific training data for MT systems. Our glossary proposal offers a concrete resource for platforms seeking to improve translation consistency while respecting linguistic and cultural nuances in the Arab world›s diverse markets.

Together, these innovations position this study at the intersection of translation theory, computational linguistics, and digital commerce—offering both scholarly insights and practical tools for enhancing cross-cultural communication in global e-commerce.

One factor influencing customer trust and, consequently, the purchasing decisions of potential buyers is a clear and precise textual description of the product. Hashem et al. [12] indicated that the use of culturally specific language in branding online products evokes familiarity, authenticity, and pride. Therefore, it's essential to consider the diversity within the target market itself during localization and term base creation. Different demographics may have distinct preferences and needs, necessitating a nuanced terminology approach that aligns with these preferences.

2.2. Arabic Fashion Terminology

The Arab world features a complex blend of regional dialects and cultural diversity, greatly influencing the standardization of clothing terminology. This lack of uniformity poses challenges for the fashion industry, especially e-commerce and localization [4]. Two key factors driving this issue are the variety of regional dialects, which influence how people label clothing, and the translation methods employed in labeling garments [13].

In the Arabic-speaking world, Modern Standard Arabic (MSA) provides a foundation for standardizing terminology for basic clothing items *Qamis* "shirt", *Thaob* "a unisex ankle-length rob that comes with different styles, variates and names" *Sirwal* "pants". However, as Meziani [14] suggests in his study, maintaining consistency is challenging as clothing continues to evolve in form and function. Distinct vocabulary for clothing based on dialect variations, contributes significantly to this lack of uniformity. This variation complicates communication and poses obstacles for e-commerce platforms targeting a broader audience.

One of the translation approaches that is contributing to the lack of standardized garment terms in the Arab world is borrowing [15]. Munday [16] describes borrowing as a translation process where a term is transferred from one language to another. This strategy is usually used when the target language lacks a direct equivalent, the concept is unfamiliar, or for stylistic reasons [13,17].

Borrowing presents two primary issues; the dilution of the Arabic language through excessive borrowing, and the variation in the sources and regional application of borrowing. Hirsch noted that many Arabic terms are borrowed

from other languages, cultures, or global fashion trends, resulting in a blend of terminology that varies significantly between regions. Moreover, borrowing often doesn't originate equally from one culture and spread uniformly across Arab regions; instead, it stems from various languages, including English, French, Spanish, Turkish, and other dominant countries in the fashion and apparel industry [18]

In the context of fashion relevant to this study, borrowing can be highlighted in two points. First, the borrowed term could be pure, directly transliterated from the source language without any adjustments, like "Jacket" "جاكيت". Second, the term could be altered phonetically and grammatically to fit the norms of the target language, such as "blouse" "بلوزة". This can be observed in fashion platforms such as Yola [19]. Consequently, the usage of these loan words, whether in labeling garment pieces or their details, is not clearly documented or standardized. In other words, it is unclear which terms are purely adopted and which are altered, and the extent of their use among the population [17].

For example, the English word "collar" is labeled differently across various Arab regions, and sometimes even within the same country. The term ياقة (Yāqā) is derived from the Persian يقه (Yaqah) or the Turkish Yaka [20]. Meanwhile, كولا (Kūlā) comes from the French word "collier" and is used interchangeably with ياقة (Yāqā) on fashion platforms [21,22]. Additionally, قبة/ أبة القميص (Qubbah/Abat al-Qamīṣ) is derived from the standard Arabic word قبة (Qubbah), meaning "dome," which resembles the shape of the garment piece placed at the top of a shirt [20]. This practice resulted in a blend of terminology unique to each Arabic region. Therefore, the lack of cohesive vocabulary complicates e-commerce localization and hinders consumers' ability to navigate products effectively across diverse cultural contexts. The challenge of this inconsistency is further intensified when utilizing MT [23], which will be elaborated in the next section.

Factors in cross-border e-commerce platforms like SHEIN's competitive advantages – localized cut-through marketing and time-to-market [24] – are built on transparent communication with target clienteles. In the KSA, where culture has strong effect on choice of dress, lack of consistency in Arabic-English terms for dresses (for example, 'maxi dress' and 'ثوب طويل') can influence market penetration. The work makes connections between SHEIN's op-erational tactics and the favored approaching of linguistic accuracy of SHEIN on the other hand the work brings up Amazon itself to contrast SHEIN to examine how lexical choice affects upon consumer trust and regional expectations.

2.3. Challenges of Machine Translation (MT) in the Localization Process

MT refers to the automated process of translating text from one language to another using software algorithms. MT has gained significant attention in the context of e-commerce platforms, where the need for quick and cost-effective localization of content is essential. Various models underpin modern MT systems, including rule-based, statistical, and neural machine translation (NMT), with NMT being the most widely used due to its capacity to produce more contextually relevant translations [25].

A NMT system uses a neural network to process a sentence from the original language, transforming it into a set of inputs, and then interprets the network's output to create a translated sentence in the desired language. Various models underpin modern MT systems, including rule-based, statistical, and neural machine translation (NMT), with NMT being the most widely used due to its capacity to produce more contextually relevant translations [8].

In e-commerce, NMT models are particularly beneficial due to their ability to learn from large datasets and produce translations that are increasingly fluent and natural-sounding. E-commerce platforms often implement hybrid models that combine NMT with other approaches (e.g., domain-specific adjustments or post-editing systems) to enhance translation accuracy. These models are typically integrated into localization software and Computer-Assisted Translation (CAT) tools, streamlining the translation workflow [26]. However, the lack of comprehensive datasets due to the lack of inconsistent glossaries or standardized terms for Arabic garment terms compared to other languages can result in less accurate translations and increases the need for human oversight to ensure quality and cultural relevance. While previous research such as Al-Malki and Al-Aama's [26] worked on Arabic image captioning for clothing has explored related areas, no study has specifically investigated how global e-commerce platforms handle Arabic garment terminology across competing localization

strategies. This comparative approach addresses a critical gap in understanding how translation quality varies between platforms that employ different technological infrastructures (e.g., Amazon›s NLP-enhanced NMT versus SHEIN›s general-purpose MT tools).

Naveen and Trojovsky [8] have pointed out this issue regarding the insufficient Arabic databases, and they provided an in-depth analysis of NMT challenges where the NMT can struggle in terms of machine learning. These challenges included a lack of terminology databases, low training data, and terminology gaps due to multiple dialects.

Furthermore, the distinct linguistic differences between Arabic and English can complicate NMT machine learning efforts. The sentence structure in terms of describing items and color naming often differs significantly between the two languages, leading to potential misinterpretations in translation [27].

In English, garment descriptions adhere to a specific syntactic structure where multiple adjectives simply accumulate before the noun. For instance, the English phrase "A long sleeveless brown dress" follows a sequence where descriptive attributes precede the noun, ending in the item itself [28]. Thus, the Arabic structure appears to proceed from the core identifying features of the item (such as dimensions) towards the more detailed attributes [27]. This structural divergence, along with the inconsistent terminology, makes it even more essential for businesses to implement effective post-editing strategies by incorporating terminology databases and refining post-editing practices [8].

2.4. SHEIN, Amazon, and Saudi Market Localization

The Saudi fashion e-commerce market has experienced significant growth due to rising internet usage, a young demographic, and shifting consumer habits [29]. In this landscape, SHEIN and Amazon are key players, utilizing different localization strategies to attract and satisfy customers. SHEIN is a global e-commerce platform known for its extensive range of women's apparel. Since entering the GCC in 2016, the company has rapidly expanded throughout the region by providing affordable fashion [30]. Regarding localization efforts, SHEIN has global customer service centers and employs multi-language support teams [31].

The platform utilizes User-Generated Content (UGC), this marketing strategy refers to any form of content, such as reviews, ratings, photos, videos, testimonials, and social media posts, created by customers or users of the platform rather than the e-commerce business itself. This content reflects their experiences, opinions, and interactions with the products or services offered. Given the sheer volume of reviews and comments based on the its vast global customer base. In addition, SHEIN employs MT services of Google Translate tools, as indicated in their legal notices [32], to provide initial translations of UGC into different languages. This allows for quick and broad accessibility [31]. However, specifics of their implementation, the specific Google Translate engine or service employed by SHEIN is not publicly specified.

Amazon, a major player in the global e-commerce landscape, features a dedicated section for women's apparel. The company officially entered the Saudi market in 2020 following its acquisition of Souq.com, rebranding it as Amazon.sa [33]. While Amazon is not primarily a fashion retailer, it has successfully established a strong presence in the Saudi e-commerce sector by offering a diverse product range through partnerships with various fashion brands [34].

In terms of localization practices, Amazon utilizes NMT as part of its natural language processing (NLP) strategy for accurate translations in its localization efforts. NLP is a field within Artificial Intelligence (AI) that focuses on enabling computers to understand, interpret, and generate human language [35]. The goal of NLP is to bridge the gap between human communication and computer understanding, allowing machines to process and analyze large amounts of natural language data (text and speech) in a meaningful and valuable way [36].

This technology is essential for accurate translations on localized platforms and for analyzing sentiment in product reviews, helping the company understand customer feedback in various languages. On Amazon, NLP supports a range of language-based applications tailored to different languages and cultural contexts [35].

The current literature emphasizes the common issues related to the inconsistent terminology in Arabic fashion and the shortcomings of MT in the localization process. However, it does not provide a detailed comparative analysis of how leading e-commerce platforms, such as SHEIN and Amazon, manage the English-to-Arabic translations of

women's garments in the e-commerce market.

Scholars like Amasiatu et al. [22] have examined consumer protection terminologies and Al-Malki & Al-Aama [26] have analyzed visual clothing descriptions, yet there remains a notable absence of research investigating how translation inconsistencies directly impact Arabic-speaking e-commerce users. Our comparative platform analysis bridges this gap by systematically evaluating how SHEIN and Amazon KSA's differing translation approaches affect user comprehension and potential purchasing decisions.

The study advances understanding of dialectal standardization in commercial contexts. Although Elmgrab [17] first highlighted Arabic terminology fragmentation, the current study extended the recent findings about machine translation challenges with Arabic syntax. Building on Naveen & Trojovsky's [8] identification of NMT struggles and Kachakeche & Scontras' [27] analysis of adjective ordering, this study provides concrete evidence of how these structural issues manifest in real-world product descriptions. Our analysis reveals how literal translations frequently violate Arabic's post-nominal structure, creating unnatural phrasing that may confuse consumers. Finally, the study shifts the paradigm in Arabic localization research by applying Skopos theory [11] to e-commerce contexts.

To sum up, study aims to fill this gap by empirically identifying the translation discrepancies found on these platforms, thereby demonstrating the tangible consequences of the insufficient Arabic garment terminology data on the performance of existing machine translation models.

3. Methodology

This study adopted a product-based qualitative approach using comparative content analysis to assess the consistency of English-Arabic translations of women's clothing descriptions on the SHEIN and Amazon Saudi Arabia platforms. The research methodology was systematically designed using four integrated stages: data collection, categorization, analysis, and verification.

For data collection, we collected 60 product descriptions (evenly distributed among 20 tops, 20 dresses, and 20 bottoms) from both platforms using stratified random sampling to ensure representativeness while accounting for clothing type bias. All collected data, including corresponding English-Arabic text pairs, were stored by archiving screenshots to preserve the original context and organized in Excel for systematic analysis. The classification phase used a rigorous coding structure consisting of 12 predefined codes grouped into three thematic categories: Arabic terminological diversity (examining modern Arabic synonyms, dialectal variations, and conceptual inconsistencies), borrowing strategies (analyzing phonetic transcription, adaptation, and literal translation methods), and stylistic flow (assessing grammatical accuracy and naturalness). Two researchers independently coded all transcripts, achieving 90% agreement between coders, with inconsistencies resolved through consensus discussions to ensure reliability. The analysis combined quantitative and qualitative methods, with frequency analysis identifying platform-specific trends (e.g., SHEIN had a higher rate of factual errors of 26 compared to Amazon's 9) and comparative assessment identifying structural issues in machine translations.

Validation was ensured through methodological triangulation, including screen capture review, documented coder reliability, and third-party audit of a 20% random sample. While the study acknowledges some limitations, such as platform-specific terminology bias, its methodological approach prioritizes transparency and replicability by directly addressing the research questions through statistical data (measuring inconsistency rates) and linguistic analysis (identifying structural flaws in machine translation). This comprehensive methodology advances e-commerce localization research by providing a replicable framework for assessing translation quality across platforms while adhering to rigorous academic standards.

To ensure robust data quality while addressing the identified research gaps, this study implemented a multi-layered experimental design by drawing methodological inspiration. The study employed rigorous manual coding conducted independently by two qualified Arabic linguists, supplemented by inter-coder reliability checks to maintain consistency in terminology analysis. The study's sampling strategy was carefully designed to capture the full spectrum of garment terminology, mirroring the systematic categorization approach demonstrated in *Categorization of Mujarrad Verbs*. By selecting a stratified sample of 60 products (evenly distributed across tops, dresses, and bottoms), we ensured comprehensive coverage of key clothing categories

while controlling for potential garment-type biases. To further enhance the study's validity, we adopted an innovative triangulation approach inspired by *THE TRANSLATION OF ARABIC SPEECH ACT*, combining multiple verification methods including screenshot archiving of original product listings, peer debriefing with domain experts, and quantitative frequency analysis of translation patterns. This multi-method validation framework was specifically designed to mitigate platform-specific biases and provide a more nuanced understanding of how different e-commerce systems handle Arabic garment terminology, while maintaining the highest standards of academic rigor in data collection and analysis.

4. Results

The comparative content analysis of 60 women's garment product descriptions (including tops, dresses, and bottoms) from SHEIN and Amazon KSA revealed notable patterns and varying levels of consistency in their English-to-Arabic translations. This analysis aimed to identify and categorize the types and frequencies of translation discrepancies, addressing key research questions related to semantic variations, translation strategies, and stylistic issues.

To achieve this, each product description was systematically examined and coded using a set of 12 predefined codes, organized under three main thematic categories: (1) variation of Arabic translated terms, (2) borrowing and translation strategies, and (3) style and natural flow. The coding process was carried out manually in Excel, with each description analyzed to identify instances corresponding to these codes. These included semantic discrepancies such as the use of different or inconsistent Arabic terms, translation strategies like transliteration, literal translation, omission, and addition, as well as stylistic issues affecting natural flow and readability.

4.1. Variations of Arabic Translated Terms

From SHEIN, a total of 73 English terms were extracted, and 24 of these (33%) had various translations. In comparison, 185 English terms were extracted from Amazon KSA, with 38 of them (20%) showing various translations.

Semantic discrepancies of translation emerged as a significant area of variation. While both platforms occasionally employed MSA synonyms (code-semantic: MSA syn), the frequency differed. SHEIN, 27 (61%), showed a slightly higher tendency towards using recognized MSA alternatives than Amazon, 23 (50%). Dialectal variation (code-semantic: dialectal variation) was also more apparent on SHEIN, 11(15%) instances, with certain terms appearing to align with specific Arabic dialects not consistently used by Amazon, which only showed 8 (4%) instances of dialectal variation.

Instances of conceptual mismatch (code-semantic: conceptual mismatch), where the Arabic term suggested a fundamentally different understanding of the English item, were present on both platforms, with 10 instances on each platform (SHEIN 14%, Amazon 5%). Indicating occasional failures in conveying the intended meaning.

Furthermore, discrepancies in specificity levels (code-semantic: specificity level) were observed, where one Arabic term was more general while its corresponding English term was more specific. Notably, SHEIN encountered this issue in 8 (11%) terms, and only 4 (2%) terms fell under this code.

Accuracy issues varied in their manifestation. Factual errors (code-accuracy: factual error), where the Arabic term misrepresented a garment attribute, were highly prevalent in SHEIN with 26 (36%) instances compared to Amazon, which had only 9 (5%) instances. Grammatical errors (code-accuracy: grammatical error) were also noticeable, with SHEIN recording 11 (15%) and Amazon 7 (4%) instances of incorrect gender agreement or pluralization.

4.2. Borrowing and Translation Strategies

The code application of this theme focuses on how English terms were adapted and translated into Arabic. This theme highlighted contrasting approaches. SHEIN exhibited a greater tendency towards pure transliteration (code-borrowing: pure translation) of English terms, particularly for newer fashion items or specific materials. 14 (19%) instances. Amazon also employed transliteration by 26 (14%) instances. The adapted translation, integrating English loanwords more phonetically into Arabic (code-borrowing: adapted translation) on SHEIN showed 5 (7%), while Amazon showed 5 (3%) instances.

The use of literal, or word-for-word translation (code-translation strategy: literal translation) was observed on

both platforms, SHEIN 61 (85%), and Amazon 63 (34%) instances. Sometimes resulting in accurate renderings but occasionally leading to awkward or less natural phrasing.

In terms of information handling, where details present in the English description were absent in the Arabic translation, both platforms showed instances of omission (code-info handling: omission),SHEIN 20 (27%), and Amazon 12 (7%) instances. Addition, or adding clarifying information not explicitly stated in the English, (code- info handling: addition) was also observed, with SHEIN 7 (10%), and Amazon 2 (1%) instances.

4.3. Style and Natural Flow

Under this theme, the (code-style: awkward/unnatural flow) highlighted that while individual terms might be accurate, the overall Arabic sentence structure frequently resulted in a clunky or unnatural feel. This suggested a potential influence of literal machine translation or limited contextual data and terminology used during training. Stylistic inconsistencies were noticeable, with unnatural phrasing more frequently observed in SHEIN 53 (74%) compared to Amazon, which also exhibited some awkwardness but to a lesser extent 41(22%) instances.

5. Discussion

Our analysis revealed that while both SHEIN and Amazon offered Arabic translations for women's apparel, SHEIN's approach resulted in greater variability and a higher frequency of translation discrepancies, including inconsistent terminology and literal translations.

SHEIN's translations exhibited a higher frequency of grammatical errors, such as women`s Jacket "جاكيت نسائية", literal renderings such as summer tops "قمة صيفية", and inconsistent terminology, such as pants "سروال/بنطال/بنطلون". These issues are signs of the limitations often associated with general-purpose MT tools like Google Translate, which can struggle with the nuanced linguistic structures of Arabic [8]. Furthermore, the integration of User-Generated Content, characterized by informal language and regional variations [4,18], likely compounds this variability, contributing to the overall inconsistency observed.

Despite Amazon's claim of utilizing sophisticated NLP and NMT for localization [36], their translations were not entirely free of inconsistencies. However, they generally exhibited a slightly higher degree of standardization and more natural grammatical structures compared to SHEIN. Yet, the presence of some inaccuracies suggests that even Amazon's sophisticated NLP and NMT, like general MT, still face challenges in fully mastering the nuances of Arabic translation in certain instances.

For instance, contrasting the general MT output of SHEIN`s (Google Translate) for "Women square neck lace panel long sleeve simple casual long dress" as "فستان ماكسي طويل نسائي حريري بياقة مربعة وأكمام طويلة بتطريز دنتيل, بسيط وكاجوال", with Amazon's more advanced NMT rendering of "women`s polyester fit and flare maxi casual dress" as "دريس كاجوال ماكسي طويل بتصميم فيت اند فلير من البوليستر للنساء", reveals distinct stylistic and lexical choices with Amazon's translation occasionally featuring renderings that surprisingly mirror the more literal or less nuanced outputs often seen in basic MT systems.

The inconsistent use of Arabic terminology in product descriptions on SHEIN—and to a lesser extent on Amazon KSA—poses significant challenges for Saudi shoppers. As Kockaert and Steurs [7] highlighted, consistent terminology is essential for clear and straightforward understanding in online shopping contexts.

This inconsistency is evident in the varying Arabic terms used for identical clothing items. For instance, SHEIN translates "shirt" interchangeably as قميص, بلوزة or تي شيرت, and similar variations are found for "women's pants" as سروال, and بنطال, بنطلون. Additionally, we observed inconsistent handling of borrowed English terms. For instance, on Amazon, the same product category may be labeled with dialectal variations such as جيبه حريمي, and تنورة, نسائي, all referring to "women skirt" which can further complicate user navigation.

This lack of terminological uniformity can lead to significant confusion for consumers, particularly when searching for specific products, potentially causing them to rely more heavily on product images as their primary means of understanding. Ultimately, this reflects a failure of the language to effectively convey the intended meaning.

These issues contradict Skopos theory [11], which emphasizes that translations should effectively serve their intended purpose for users. Using different terms for the same items diminishes clarity and creates uncertainty, undermin-

ing effective communication and user trust.

To more comprehensively address the implications of these findings for MT models, the observed translation discrepancies can be directly linked to the challenges of MT for Arabic, as highlighted in the literature review.

The prevalence of literal translations on both platforms, such as SHEIN's " فستان حفلة وسهرة أنيق مزين بالترتر اللامع والقطيفة مع رقبة دائرية وبدون أكمام، مطرز بالأزهار، مناسب لأيام الحب والصيف ورأس السنة " for " Velvet shiny sequins embellished round neck sleeveless floral embroidery elegant party cocktail dress, suitable for Valentines`s Day, Summer, New Year.", directly reflects the challenges posed by the structural divergence between English and Arabic sentence formation, as outlined by Kachakeche & Scontras [27]. As they noted, English descriptions often accumulate adjectives before the noun, while Arabic places them after. The literal translations observed indicated that the MT systems are struggling to consistently adapt to this fundamental difference, resulting in awkward and unnatural phrasing that mirrors English syntax.

The instances of inconsistent terminology, including the use of MSA synonyms, dialectal variations (e.g., different words for "skirt" on Amazon), and varying approaches to borrowing (e.g., transliteration vs. adaptation), underscore the lack of comprehensive and standardized Arabic fashion terminology data for effective MT training. As Naveen and Trojovsky [8] emphasized, the scarcity of such resources hinders the ability of MT systems to learn the appropriate context-specific terms and nuances of the Arabic language.

The variations observed in this study provide empirical evidence for this data limitation, demonstrating how it leads to inconsistent and potentially confusing translations for consumers. Dweikat [4] also supports this point, noting that the diverse regional dialects in the Arab world contribute to the lack of uniformity in clothing terminology, further complicating the task of MT.

Furthermore, the frequent occurrence of awkward or unnatural phrasing supports the argument by Naveen and Trojovsky [8] regarding the difficulty of MT systems in capturing the nuances of Arabic. While individual words may be translated correctly, the overall sentence structure often lacks the fluency and naturalness of human-generated text. For example, the translation of "Ancoco women's double layered color clash loose fit chiffon pants" as "انجكوكو بنطلون

"شيفون مزدوج الطبقات بقصة واسعة ولون كلاش للنساء illustrates this issue. The transliteration of the brand name "Ancoco" is confusing; it would be clearer to either keep the original English name or consistently add "من ماركة انجكوكو" to specify the brand. This practice, however, is applied inconsistently across different product descriptions.

The phrase "clash color" simply refers to contrasting colors, indicating that the chiffon layers feature multiple colors. However, the Arabic translations interpret "كلاش" as a specific color, which alters the intended meaning. This suggests that the machine translation models are not effectively capturing the subtle stylistic and contextual nuances that are essential for conveying natural and accurate language in Arabic.

The sheer frequency of errors and inconsistencies across both platforms, but especially on SHEIN, emphasizes the substantial level of human intervention required to ensure translation quality and accuracy. Without such intervention, the translated product descriptions are likely to be perceived as unprofessional, unreliable, and potentially misleading, negatively impacting consumer trust and purchasing decisions, as discussed by Hashem et al. [12].

The observed inconsistencies also highlight the lack of effective terminology management strategies on these platforms. A centralized and consistently applied glossary of standardized Arabic fashion terms, taking into account dialectal variations and preferred borrowing conventions, is essential for improving the output of MT systems and ensuring a more unified and professional user experience.

6. Conclusions

This study undertook a comparative content analysis of product descriptions on SHEIN and Amazon KSA to evaluate the consistency of their English-to-Arabic translations of women's garment terminology, examining aspects such as terminology variations, borrowing strategies, and stylistic choices.

This study reveals that the English-to-Arabic translations of women's garment descriptions on SHEIN and, to a lesser extent, Amazon KSA exhibit significant inconsistencies. SHEIN, in particular, demonstrates a higher prevalence of grammatical errors, literal translations, and inconsistent terminology. These issues likely stem from the

limitations of general-purpose MT tools and the integration of user-generated content. While Amazon KSA generally shows greater standardization, it is not entirely immune to these problems, suggesting that general MT influences are still present.

The discrepancies in translation, including the inconsistent use of Arabic terms, varying approaches to handling borrowed English words, and awkward phrasing, pose substantial challenges for Saudi consumers. These inconsistencies can lead to confusion, hinder product searches, and potentially erode consumer trust, ultimately impacting purchasing decisions. The findings underscore a contradiction with Skopos theory [11], as the translations often fail to serve their intended purpose of providing clear and accurate information to the target audience.

Several limitations should be considered when interpreting these results. Primarily, the focus on two e-commerce platforms and a single product category may limit the generalizability of the findings.

The implications of this study highlight the urgent need for e-commerce platforms to adopt more rigorous localization strategies. This includes the implementation of robust post-editing processes, the development and consistent application of standardized Arabic fashion terminology glossaries, and a more nuanced approach to MT that accounts for the linguistic complexities of Arabic.

By addressing these issues, platforms can enhance the user experience, improve communication effectiveness, and foster greater consumer trust in the Saudi market. Future research could expand the scope to include additional e-commerce platforms and product categories, as well as investigate the impact of these translation inconsistencies on consumer behavior in more detail.

Author Contributions

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Institutional Review Board Statement

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The authors declare no conflict of interest .

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