Consumer Needs and Design Practices for Trusted Social Commerce Platforms

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Abstract. Due to the increased popularity of social networking platforms, a new form of electronic commerce (e-commerce) has emerged, namely social commerce (s-commerce). This research examines trust mechanisms based on the buyers' perspectives in Saudi Arabia and how social platforms can be better designed to enhance trust. Two studies were conducted to achieve the aims: co-design workshops undertaken to develop and finalize design recommendations, and the second comprised a critique of the mock-up to evaluate the recommendations. These two studies helped validate the results of previous studies conducted to understand the current use of s-commerce platforms. In this paper, critical features for such platforms are identified and design preferences are explored (e.g., news feed and explore). This paper can help inform the design of s-commerce, especially with regard to social and trust aspects. For example, the features related to family and friends, such as friends' verifications, reviews and profiles, have a crucial impact on enhancing trust within social commerce platforms.
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Keywords: E-commerce · Social commerce · Social media · Trust · Social features · Social influence · Instagram.

1 Introduction

Over the last few years, electronic commerce (e-commerce) has changed remarkably. With the extensive use and increasing popularity of social networking platforms, social commerce (s-commerce) has emerged, first introduced as a concept in 2005 by Yahoo [1]. S-commerce refers to a new e-commerce business model driven by the use of social media platforms to conduct commercial activities [2]. A distinction can be made between e-commerce (e.g. Amazon) and s-commerce (e.g. Facebook) as the former entails one-way activity, whereas the latter enables interactions between sellers and buyers, as well as interactions between members and communities [3]. Many people rely on their friends' opinions and recommendations before buying a product, which makes the purchase process a social experience [4].

Consumers in many countries, such as the Kingdom of Saudi Arabia (KSA), Kuwait, Egypt [5], Indonesia [6], and Malaysia [7], are increasingly using social media platforms like Instagram to buy and sell products and services. Using social networks for conducting e-commerce has become popular, even though social networking platforms lack e-commerce tools. People need to trust the platform, find what they need, and communicate with the buyer/seller to conduct commercial transactions.

In the field of human-computer interaction (HCI), some studies have explored user behaviours in social media applications [3][8][9]. Most current studies have investigated the use of Facebook. There is a clear need to investigate different social media platforms and to conduct research in non-Western countries [3][9]. Although various features of s-commerce have been identified in previous research, they have not been studied in depth [3]. Moreover, with the growth in s-commerce, using social media to engage in business transactions, it has become necessary to understand user behaviours and routines to tailor the design of s-commerce platforms. The challenges facing users should be identified, especially concerning trust, which remains one of the issues requiring further study, especially in different contexts. Therefore, this study focused on the KSA context, examining consumers' current use of s-commerce platforms and how to design such platforms to better meet their needs and enhance their trust. The research question addressed in this study was as follows: RQ1. What are the features that can create or enhance trust between sellers and buyers on social commerce platforms?

To answer this question, two studies were undertaken: Co-design and critique workshops were conducted to investigate the use of s-commerce features and their effect on trust and presented after the background. The data from these workshops were analyzed focusing on how to improve trust. Both social and commercial features were identified. Moreover, four main categories of features were shown to enhance trust, related to sellers, the App, previous customers, and family and friends, which are described in the discussion section. This research paper makes the following contributions:

- It investigates the features and factors that affect trust in s-commerce platforms.
- It discusses design implications and considerations for s-commerce platforms.

2 Background

Social media is widely used to socialize and share information, and more recently has begun to be used for conducting commercial activities. The use of social aspects for business transactions has created a new form of e-commerce called s-commerce [3]. This is defined in various ways as it encompasses many disciplines, such as psychology, marketing, and computer science. It can be defined as a subset of e-commerce that includes the use of social media to help in conducting commercial activities and transactions [10]. The use of social media enables consumers to share their shopping information [1]. Therefore, it is used to support consumers, allowing them to contribute and interact, thus assisting businesses, mainly due to the popularity of social networks [10].

Several studies have discussed the importance of including social features together with commercial functions [2][11]. Consumers' intention to buy on s-commerce platforms can be affected positively by both social and technical factors [12]. Huang and

Benyoucef (2017) found that purchase decision-making can be influenced by the design of s-commerce [13]. In e-commerce platforms, designing for trust is increasingly gaining attention in the HCI field [3][9]. In particular, trust is one of the essential factors that can affect online shopping [14]. Therefore, features that create trust are needed on these platforms [15]. Previous studies investigated how to create trust between peers in some applications such as Etsy and Airbnb [15][16][17]. Despite lacking the traditional e-commerce tools that assist commercial activities, social media platforms are being used to conduct business transactions [9]. Importantly, some features are available on social media that can initiate trust [12]. For example, a study found that a sale group in Facebook established trust by sharing membership within a close group [9].

Various features might initiate or enhance trust in online shopping platforms [1][9][15]. The user profile is one such feature that can foster trust [1], helping consumers share their experiences with others [13]. A tool adopted by businesses is direct communication [15], as an online social presence that gives a sense of direct human contact can influence trust [18]. Furthermore, sellers can enhance their social presence through the amount of information they provide [19].

Information that cannot be manipulated by sellers (e.g. third-party verification and reputation-based systems) is also essential to establish trust, an aspect that is related to warranting theory [20][21]. A previous studies found that the provision of verification by an App can positively affect trust, such as that found on Airbnb [17]. In the KSA, the government has launched an initiative called "Maroof," a form of third-party authentication that ensures sellers' data are correct based on verification of their national ID; this has been found to increase consumers' purchase intention [22].

Information provided by previous customers has been found to be one of the main factors helping consumers identify trustworthy sellers [3][9]. Ratings, reviews, and relationships with other customers can reduce uncertainty and develop familiarity [23]. It is considered more trustworthy than information provided by sellers [14][24][25]. Information about the reviewers can help consumers assess the reviewers' credibility [26], by reviews by peers are more important to consumers than those by strangers [27]. As well as reviews, photographs of products posted by reviewers support consumers in making a purchase decision as they are more credible than sellers' images of products and indicate that the customers have tried the product [28].

Family and friends are trusted sources for consumers [29], and features associated with them, such as highlighting friends' reviews, can enhance trust [2]. Previous studies have suggested including social approval features, such as enabling the sharing of purchase activities with friends, as these can positively influence the consumer purchase decision [30]. In China, 50% of consumers tend to rely on their friends' suggestions and recommendations to make a purchase decision [4].

Users should be encouraged to use social features and interact with the public or friends and family. Previous studies have recommended including rewards for customers who make purchase recommendations [31]. Moreover, a study in China found that consumers tend to share their shopping information more if there are economic rewards, such as discounts [27]. Privacy also plays a significant role in sharing activities, and thus it has been proposed that consumers should be given options for privacy settings to choose what information they share and with whom [12].

In Saudi Arabia, s-commerce use has rapidly grown [22][32]. It has been used by women entrepreneurs to sell and present their products such as handmade and customized products. Previous studies examine the use of social media applications by entrepreneurs to conduct commercial activities such as marketing strategy [33] and how to interact with and attract customers [34]. Other studies focus on factors that positively associate with behavioral intentions such as social support, and social commerce constructs [35][36], as well as factors that influence the adoption of social commerce [37]. There are very few studies that investigate factors that have an effect on consumer trust. Examples of such studies include [22], which looks at factors such as Social Media Influencers (SMIs), Key Opinion Leaders (KOLs), and consumer feedback. Another interesting work [38] demonstrates how trust mediates the relationship between social support and social commerce intentions. However, in general, we have found that research work into the identification of mechanisms that enhance trust in online social commerce through design is currently insufficient. The aim of this paper is to fill this important gap.

3   Methods

A qualitative approach was employed [38], comprising co-design workshops [39] and critique design workshops [40]. To recruit participants for the two studies, a message was sent through social networks. The message included a brief description of the research, the workshop aims, and a link to a Google form to register. The Google form including an information sheet and a consent form. Those interested in participating could open the form and complete it, providing details such as name, nationality, whether they used s-commerce, whether they used e-commerce, and their contact details. The workshops took place either in meeting rooms or cafés. All the participants (buyers) were Saudi females. The target audience for the workshops was female consumers with experience of using s-commerce and/or e-commerce, i.e., current users, as well as potential users.

The co-design workshops were held in February 2019 and the critique design workshops were conducted in December 2019. Most of the participants had university-level education – either a bachelor's or postgraduate degree. The range of income was less than SAR 5,000 to SAR 20,000. We purposely recruited participants covering a wide range of ages and occupations and with different experience of ecommerce and s-commerce so the results would be more generalisable to the general population, not a specific demographic or user case.

3.1   Study One

Co-design workshops can be used to direct future design directions [40][41], and in this study, inspired by previous research [41][42], were conducted to identify improvements that could be made to the existing s-commerce site (Instagram), used as an example, to enhance trust. There were 10 participants in total, all female for reasons of culture as it

was not possible to conduct workshops with male participants as cross-gender communication and interactions in Saudi Arabia should be mediated by guardians/chaperones and due to gender segregation [43]. The first workshop involved four participants, while the second and third workshops involved three. The two-hour workshops comprised four activities with a break in the middle.

The first activity entailed welcoming the participants and having them complete the survey and consent form. In the second, they discussed their current use of s-commerce and e-commerce, the extent to which they trusted platforms, and issues concerning trust. The third activity involved examining existing online shopping applications. For this activity, participants were provided with cards that included screenshots of interfaces for two applications, Amazon and Instagram. The key reason for choosing these was that they are widely used and highly preferred applications in the KSA [44]. The workshops included key questions inspired by those suggested in previous research for co-design workshops [40]. The participants were first asked to check the Instagram screenshots and discuss what they currently liked/did not like about the application, and what they would change. They then undertook the same process with the Amazon screenshots. The fourth and final activity entailed discussing and sorting the social features and commercial functions they considered essential to conduct a commercial transaction using cards with items identified through a review of previous studies. The participants were asked to categorize them as essential, very important, and less important. (See Fig1, 2 & 3 for workshop photographs.)
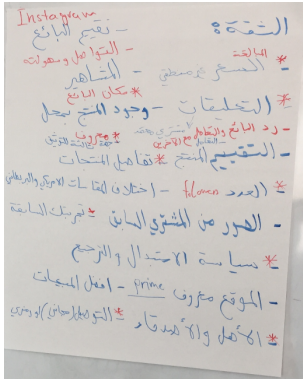
Fig. 1. Second activity in the co-design workshop
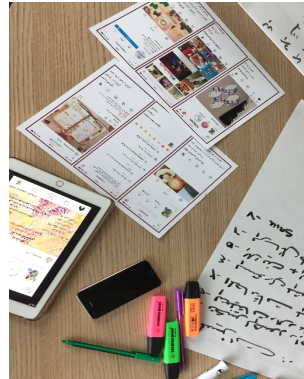
Fig. 2. Checking the screenshots and writing notes
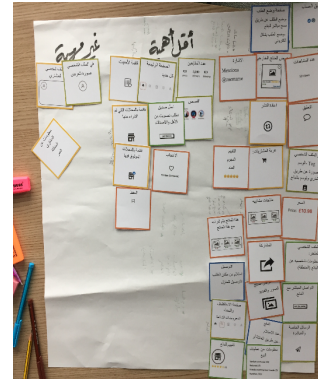
Fig. 3. Card sorting in the co-design workshop

3.2 Study Two

Critique workshops were conducted to assess and review a mock-up, and to finalize the design recommendations (considerations). These workshops aimed to evaluate the existing idea rather than suggesting new ideas [40], and to establish how participants interacted with the mock-up. The mock-up was a clickable Smartphone prototype designed using Adobe XD software based on the findings of the prior investigations (co-

design workshops and previous studies [32][34]). Three two-hour workshops were conducted and each included 5–6 participants (16 in total).

In conducting the workshops, a design critique technique was followed [40]. The mock-up was presented to the groups as a pre-installed prototype using laptops, iPads, and mobile phones. The interface was also available as a printed version, enabling the participants to make notes and write comments on them. The workshops started with a brief explanation of the project, stating that the design was in its first stage and could easily be changed to allow them to feel free to critique. It was primarily about evaluating the concepts. The participants were asked to write reviews on cards coded in three colors: things you like, e.g., I like that I can see popular products (green); things not clear, e.g., tell me more about placing an order (yellow); things you suggest adding, e.g., have you thought about including owner accounts under their shop account (pink)?

The workshops were structured based on the functionalities of the mock-up: (i) browsing and exploring; (ii) searching; (iii) checking the seller's profile; (iv) checking the product page; (v) writing reviews and the reward system; (vi) sharing with others; (vii) placing an order. For each function, participants were asked to navigate and write their comments on the relevant critique cards. Then, the participants discussed their comments and how/why the design did/did not satisfy a user need, together with their suggestions for improving the design. The participants were encouraged to focus on the features and functionalities of the prototype rather than the representation and graphical interface. (See Fig 4. for the workshop photographs.)
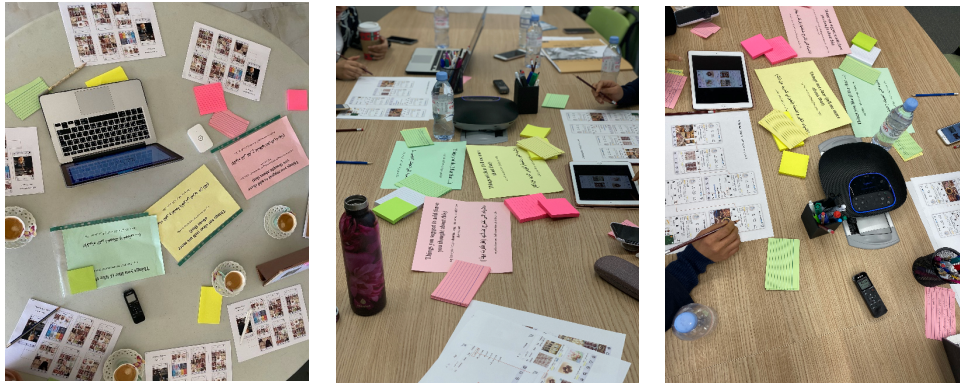
Fig. 4. Evaluation workshops

The data from the workshops, the participants' notes, and images of the card sorting were collated. All the workshop sessions were audio-recorded and professionally transcribed. The data were analyzed inductively, adopting a realist approach using thematic analysis, i.e., reporting the experiences of the participants (their realities and meanings) [45]. All the qualitative data collected were coded in ATLAS.ti. First, the transcripts were read line by line to become familiar with the data and to develop initial ideas. Open coding was then conducted before grouping the codes, merging similar codes, and finally categorizing them under themes [33]. The research team discussed the codes and themes and agreed on them.

4 Findings

4.1 News Feeds and Browsing (Social and Commercial Features and Functions – Ease and Difficulty)

The inclusion of social content on s-commerce platforms was one of the motivations discussed by participants fostering engagement. Having a platform that included social content, such as recipes posted by others, influencers' posts, , and so on, would motivate participants to use and buy from the platform as this would keep them up to date. For example, P8 said "I love the idea that I can view the social news and feeds, and also can shop. It is also easy because it is clearly divided, so I can choose what I am looking for." They believed that by combining both social and commercial aspects, for example, showing them nearby shops, popular products, and friends' products, the purchase decision would become easier and faster as these features could enhance trust.

Those involved in the first and second critique workshops loved the idea of mixing social media with shopping activities. They wanted to see social news and feeds, and be able to find or view products and buy them at the same time. P2 reported "I love the idea that I can do everything on one app – there is a shopping aspect and a social aspect." However, those in the third workshop suggested having a social/commercial application that focused more on shopping, with the social side of the platform being mostly related to the shopping activities. As P11 said, "I want to have a social shopping experience, so I want to have a shopping application with my friends where we can share and see what they like and include only businesses and my friends."

Participants greatly liked having different options for placing an order, for example, placing an order automatically without the need to communicate with the sellers, which would save time and be easier. They also liked having payment options that they could choose from. They believed that they could trust cash on delivery, but having various trusted payment methods would ease the process because they would not always have cash. They particularly liked being able to use Apple Pay as it is faster than other methods and cand be trusted. As P6 remarked, "I love that I can choose to pay by Apple Pay because I have stopped carrying cash with me."

Although participants liked being able to place orders automatically, they said that they also needed other means of doing so, namely by communicating directly with the seller, and by sending the order to friends or family to place it for them. Some participants felt that sometimes they would want to communicate directly with the seller to check details about the product, or because it was easier. Moreover, participants mentioned that some older people or those who do not trust automatic ordering might prefer to place an order by sending messages and communicating directly with the sellers. As P10 noted, "Some people insist on having direct communication with the seller and ordering by sending a message, especially elderly people, or if they want to ask something before ordering. Some people do not like to place an order automatically as they do not trust the technical aspects; they just trust dealing directly with people."

Participants also liked being able to place orders through family and friends, and they thought this was an important feature. Participants mentioned that they often had difficulties ordering for their family and friends because they had to get a screenshot

sent to them and then order it. Their family and friends did this mostly because they were not sure if they should trust a particular shop, or they did not want to have any communication with the sellers or drivers when they delivered the products. As P14 remarked, "My friends and my family always ask me to order for them, so I think this feature is important for me. So, instead of searching for what they want, I will ask them to send me their order and then I will do the transaction because they do not trust placing the order themselves. They usually tell me what they want and I search and read the reviews and decide if I can trust buying from that seller or not. Sometimes, they do not want to communicate with the sellers, so they ask me to order what they want."

4.2   Searching and exploring

The participants found the exploring and browsing features useful in helping them choose a product and make a purchase decision. They mentioned that the ability to view popular products, those currently trending, and those being bought by many people could enhance trust. They believed that such products were becoming popular because the people who had bought and tried them liked them and recommended them to their friends and family, and thus they became popular. P14 said "I always want to see what the trending products are now and which shops sell them. This will really save my time and I can find what I want faster." Participants mentioned that they really liked being able to explore what their friends and friends of friends had bought. They believed that this would help them to find trustworthy shops as they trusted their friends. As P8 put it, "I love that I can see what my friends have bought because then I can trust the shop because my friends have bought from it."

Moreover, participants confirmed that the filter in the search was an essential element, helping them to enhance their trust as they could choose to see only what was trusted by their friends or just to view products from verified shops. Participants provided examples of the essential elements in the filters: nearby, price, verified by, and top reviews. As P12 said, "I like that I can filter the results of my search by choosing what my friends bought or choosing the price."

4.3   Sellers' practices

The participants described sellers' practices as one of the main factors affecting their trust. Sellers' practices include the provision of information and detail in their profiles, and the ways in which they communicate. Participants reported the value of having more information, such as their location, policies, product types, payment methods, and contact details; these would enhance trust and help with the purchase decision. However, they debated whether the sellers would add all their information or not. Therefore, participants suggested encouraging sellers to add full information. As P8 commented, "…from the trust perspective, I think it is really important to find out more information about sellers. So, having sellers' profiles with full details would lead to greater trust. I think the app should force sellers to fill in all the details." Moreover, the participants suggested that some of the sellers' information should be verified by the platform to

provide greater trust. As P13 noted, "I like to find information about the sellers, but not only written by them; there should be information that is verified by the app."

In addition, participants discussed the importance of having verification icons on the sellers' profiles to enhance trust. These icons would be verified by the app, by friends, and by Maroof. As P1 commented, "I like the verification icons on sellers' profiles because they can increase my trust, especially as there can be three different icons, for Maroof, the app, and friends. All of these can affect my trust." Participants discussed the need for government control to enhance trust between buyers and sellers, specifically by asking sellers to register with Maroof. They also proposed that government control should not just be about taking details, but also checking the quality of products. For example, it should be verified that food being sold is clean and complies with standards. As P2 commented, "Sellers' accounts should be linked directly to Maroof and verified by the government. Also, sellers should be monitored to assure quality."

Participants also expressed how the means of communication with sellers affected their trust. They believed that direct communication (instant messaging) on the s-commerce platform was very advantageous. It helped them find out any more details they were looking for, as well as the sellers' responses giving them comfort and a sense of trust. If sellers did not respond directly, the participants might not purchase from them. As P2 commented, "I sent a message to the seller to ask a question, but I did not get any response and so I decided not to buy from that seller."

4.4   Product information

Participants believed that the products page was more useful when it included all the details and information needed, mainly when it contained information provided by the seller, app, and previous customers. The participants articulated the importance of having the price on the product page as this assured them that the price was fixed and the seller was not playing them. They thought one of the main issues with Instagram was that the price was not made available and they needed to send a private message to ask the seller, who they did not trust, for a price, and then it took time to get a response. For this reason, participants suggested encouraging sellers to add their prices. For example, P14 stated "I do not trust sellers who do not include prices because I think they manipulate them. So, I suggest making sellers include the prices of all the products."

The statistics showing the number of purchases and returns were also discussed by participants. Those in one of the critique workshops mentioned that they did not think they needed statistics for purchases. They believed that this information was essential for the sellers. They thought that they could find out if people did not like the product and had returned it through reviews. As P1 remarked, "I love that the reviews have the verified purchase feature so I can trust that for sure they tried the product and there is no need for the return numbers or information because it could be written in the reviews." However, the participants in the other two workshops thought having the purchase and return numbers would help in the purchase decision. If there were many returns with reasons given, they would change their mind and would not buy the product. However, if the number of purchases was very high, they might trust the product and buy it. As P6 commented, "I would like to see the number of returns and the reasons to

help me to choose whether to buy or not. For example, if the reason is that she thinks it is too sweet, it is ok with me, I like sweet things and I will buy it."

Images of products can help consumers make a purchase decision. The participants mentioned that they liked seeing many images of the same product. These images could be from different angles, have an item such as a mobile next to the product to show its size, and should be professional and clear. However, they wanted to have real photographs, not images doctored using filters. P10 remarked "I like to see photos of the products that are high quality and clear, but a natural photo, not with filters." Another suggestion was to add multiple photographs to show the product. Having plenty of photographs and videos would enhance trust and encourage them to purchase the product.

Participants discussed the option of having "similar products" from different sellers and "frequently bought together" on the product page, features that are currently available on Amazon can enhance their trust. Similar products help users to compare prices and view other options, similar to those they are seeking. As P1 commented, "I like to see similar products because I can compare prices and see other options." The "frequently bought together" feature also helps consumers make a purchase decision as it shows which products they might need to buy with the original product. The participants discussed the importance of these features as sometimes consumers do not know which other items they might need to buy with what they have chosen. For example, P6 remarked "I bought a printer, but I was not sure what ink to buy with it, and this feature helped me identify the right one."

4.5   Reviews and feedback

On Instagram, the participants mentioned that the number of followers was one of the features that helped enhance their trust as a review mechanism. However, they were concerned that there was a chance that sellers bought the number of followers and faked it. Therefore, they checked the comments under the posts, which might contain previous customers' opinions. For example, P9 recounted "From my experience, the number of followers is not enough to gain trust because you might buy a product from an account but not follow it, so this does not mean that nobody buys from them. Maybe it is helpful to check the number but also check the comments."

However, on Amazon there is a review system that includes reviews from previous customers. Participants mentioned that the review system was one of the most critical factors that affected their trust. Some participants wanted to be sure that the reviews were not fake or from people who knew the sellers and just wanted to help them. They considered that the verified purchase feature might help them feel that the reviews were real. As P7 noted, "I like that you cannot add a review unless you have a verified purchase to be sure it is not fake." Participants mentioned that reviews may also help them with their purchase decision, especially in terms of gaining more details about the products. As P6 said, "Customers' reviews are really important. I changed my mind based on a customer's experience, which was in a review, because usually customers can mention the drawbacks of a product."

A couple of participants (n = 2) mentioned that they would like to see information about the reviewers for two reasons: (i) they may have the same interests, so they would

want to see what the reviewer bought; (ii) to be sure that the reviewer was not fake. For example, P10 said "I would like to be able to access the profile to be able to know if we share the same interests in terms of what products they bought. For example, if they had a kid the same age as my son, I could check what toys they bought for their son." P5 added "…having access to the reviewer's profile and checking the reviews on the profile can help ensure that this review is trustworthy."

Participants liked the feature enabling them to see photos from customers because they were more genuine than other images. They believed that they could verify that the seller was trustworthy if the photos from customers and sellers matched. As noted by P10, "The photos taken by the customers will be reassuring and show whether the seller's photos are real or not."

Two groups mentioned that they liked the feature enabling them to ask previous customers about a product, or to be asked about products by new customers. Participants thought this provided greater reliability and they could trust the answers that they got from previous customers. As P4 noted, "I love the idea of having the ability to ask previous customers because they are more trustworthy."

4.6   Writing reviews' issues and motivations

The participants discussed an issue with the review system in the KSA specifically, namely reviews with few details or no reviews at all. Foreign reviews tend to be more helpful and more detailed than Arabic reviews. The participants mentioned that generally few people in the KSA write reviews and sometimes not at all. The participants explored their experiences of writing reviews. Most of the participants (n = 7) said that they did not write reviews for various reasons, such as not being excited about sharing their experience. In particular, most people said they did not like to write, were busy, or had no inclination to do so. However, some of the participants (n = 3) mentioned that they were encouraged to write reviews on global websites, such as Amazon, because they saw many other people did so. As P10 explained, "I became keen on writing reviews like those from other countries because I wanted other people to have the benefit of my experience. I would have liked to find reviews from Arabian purchasers, but usually I just found foreigners' reviews."

Moreover, the participants discussed their motivations for writing reviews. As noted, people could be incentivized to share their experiences by seeing others sharing theirs. Sometimes people would forget to provide a review, but receiving a reminder email would prompt them to do so. However, P8 said "I hate receiving it by email. I think I should just receive the reminder in the app. Or have an option in the app to choose to receive reminders by email or not." Another suggestion was having optional questions to rate with stars instead of writing a review because it is easier and quicker; it would even remind the reviewer to rate specific details about the product that the reviewer might forget to write about. As P9 explained, "It is easier for the reviewer to rate specific details instead of writing a review, for example rating the size and the quality of materials. Also, it is important that the questions are optional."

Having a reward system would also motivate users to add a review. The reward should be financial, such as a 5% off, free delivery, and/or coupons. As P6 remarked,

"I love the reward system; I think it would really encourage me to leave a review and collect points to receive offers." Participants expressed their concern about who was giving the reward: Was it from the app or the sellers? As P5 noted, "…ok, I get it. So, when I collect points, I may have free delivery. But the rewards, will they be from the sellers or the platform?" They believed that it should be from the app, as the buyers would have a variety of options for rewards.

Finally, privacy aspects can also affect whether customers write a review or not. The participants considered that when they reviewed a product, they should be able to choose to show their account or hide it. On Instagram, writing a comment as a review will be linked to the reviewer's profile, so people may opt out to protect their privacy. In particular, they were afraid that if they wrote a bad review, other people would attack them and say they were destroying the seller's business. All the participants were concerned about privacy. They liked having the option to share what they wanted and have different levels of privacy: only for them, only their friends, or public. As P7 commented, "I love the feature that lets me choose if I share with others or keep it private for me, especially that there is the option to share or not next to each product. So, I can choose what to show depending on the product."

4.7 Family and friends

Family and friends depend on each other and they were one of the main ways of identifying and trusting Instagram accounts or e-commerce websites. As already noted, they can place orders for one another, for instance due to trust issues. As P10 remarked, "A lot of my friends and family send me the picture of the product that they want to order and ask me to buy it for them because they trust me more."

Moreover, participants mentioned that they might need their friends' or family's opinion to buy something. As P6 said, "I send them a message to check this product and say what they think, whether it is nice." Participants also liked the option to check their friends' profiles and see the shops that their friends trusted, the products that they bought or reviewed, and their wish list. P7 said "I shared my wish list with my friends and family when I was pregnant. So, they knew what I really wanted and needed."

The participants stated that they liked sharing good experiences with their friends and family, and receiving recommendations from them, as these helped them identify trusted sites they could buy from. For example, P10 stated "I have tried vitamins for hair growth, and I found that they really helped my hair to be heathier. So, I sent the information to my friends." Therefore, when designing an s-commerce platform, family and friends should be considered, adding social features that would encourage them to share their experiences and thus enhance users' trust.

5 Discussion

5.1 Mixing and simplifying social and commercial features and functions

As pointed out in previous research, people's views of social media and e-commerce have changed with the introduction of commercial functionality on social media [1][5].

Various studies have explored the importance of providing social features with commercial functions [2][11]. However, there is still much room for improvement, and appropriate social and commercial features should be specified to make it possible to conduct transactions efficiently and effectively. The findings show that integrating commercial functions with social features can ease the use of s-commerce and enhance trust, helping users make a purchase decision (see table 1 for preferences for features), as also recommended by a previous study [46].

Among the features preferred by the participants was a news feed (timeline) and explorer. The participants liked being able to monitor up-to-date social content and see new products without searching for them. Previous research on the use of Facebook commerce noted that buyers like to see products on the news feed without the need to check the group sale profile [9]. Moreover, browsing on s-commerce platforms improves accessibility to shops [47].

The findings demonstrate that participants like showing both popular products and those purchased by their friends in small preview within the social feeds, and this might increase intention to buy the products. These findings are in line with a previous study indicating that when many customers purchase products and they become popular, yet more consumers are then attracted [48]. Another study demonstrated that social approval is a critical mechanism in fostering consumer preferences and encouraging purchases based on what is accepted by the majority of other consumers in the community [30]. Some participants from one of the critique workshops mentioned that they wished to have an app that was primarily commerce-based, but "tweaked" to contain a social dimension, similar to Etsy [15]. However, those in the other workshops argued that the platform with both social and commercial news and posts was preferable because they might find something they liked while looking at the social news feed.

The findings show that the s-commerce app (Instagram) lacked a sophisticated search engine, which means it is more challenging to search for a product and may lead to confusion for consumers. This point was also raised by a previous study on Facebook [9]. Having a sophisticated search engine showing the preferences of friends and previous customers with filters is one of the main elements easing the purchase process, helping consumers find what they are looking, fostering trust, and providing support in making a purchase decision. It has been suggested that integrating the search engine with social media could aid the search process [25].

According to the participants, two essential features in terms of enhancing trust currently available on Amazon are "similar products" and "frequently bought together." These help in comparing prices and finding the right match for the product. This corroborates research demonstrating that these features can affect consumer behaviors [49], and provide a means of comparison to ease the purchase decision [50].

The participants mentioned that placing an order on Instagram currently entails sending a private message to the seller. A previous study has shown that this is also how orders are placed using Facebook [8][9]. The participants wanted to have the choice to place orders automatically, saving time when everything about the product was clear, or through messaging, enabling them to ask for details or customize the product. The latter option tends to be particularly critical for older people in fostering confidence. A previous study suggested allowing consumers to place an order by direct message [51].

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Table 1. Preferences for features on both s-commerce and e-commerce sites with suggestions for enhancement

Feature(s)	Details	Benefit(s)
Home page (news feed)	Include posts by the user's network / Include popular products	Being up to date with social news and products /Enhance trust
Explore	Posts related to user's interests	Being up to date with social news and products
Filter	Location, price, verified shops, etc.	Easier/ enhance trust
Payment options	Choose from a list for payment methods	Enhance trust if cash on delivery is an option /Easier
Seller's profile	Information from sellers (e.g., location, payment methods, exchange and refund policy)	Enhance trust/ Help in purchase decision/ (sellers' profiles should be public & should have a rating)
Photographs posted by sellers	Adding multiple photographs/ Clear photograph/ Different angles/ Photograph without filters	Enhance trust/ Help in purchase decision
Similar products	Compare prices	Enhance trust/ Find options
Frequently bought together	Show products frequently bought with that chosen by the user	Enhance trust/find the right product
Product page	Full details about the product/ depend on the sellers	Full details enhance trust/ Cannot trust without the price
Direct messaging with sellers	Being able to communicate directly with the seller	Enhance trust/ place an order easily/ seek more product details
Verifications	Government (e.g., Maroof)/ Third party	Enhance trust
Purchase history statistics	Number of purchases & returns	Enhance trust
Reviews	Number of reviews (followers) / Rating/ Review details (comments) / Reviewer profile /Verified purchase	Help in purchase decision/ Enhance trust
Seller's rating	Rating sellers, not just the products	Enhance trust
Photographs and videos by customers	Photographs taken and posted by previous customers	Enhance trust
Reviewer's profile	Check the reviewer's profile	Enhance trust (not fake)
Reward system	Give points or offers as a reward for reviewers	Motivate users to review
Individual's profile	Being able to communicate and share	Enhance trust
Following network	Having a connection/ Being able to follow accounts (individuals and sellers)	Trust their friends and who their friends recommend/being up to date with what their post
Direct messages with family and friends	Being able to send direct messages to friends	Share products they like/ ask about product/ ask for opinion
Privacy options	Being able to choose what to share and at what level	Motivate customers to share

The participants preferred paying cash on delivery as they felt this was more trustworthy, reflecting the findings of previous studies in Indonesia [52] and China [53]. However, they liked being able to choose from various trusted payment methods because they would not always have cash. They were excited to see Apple Pay as an option because it is easy and faster than transferring money, as also suggested by a previous study [54].

5.2   Trust activities and mechanisms

This study examined the social features and commercial functions that can initiate and increase trust. These features and functions are related to sellers, the platform, previous customers, and family and friends. The design of a platform can influence consumers' trust, which is a critical factor that affects the purchase decision [19]. Therefore, trust should be a concern when designing an s-commerce platform.

Sellers as a source of information. The findings reveal the importance of the seller profile, direct instant messaging, and product page as these features can increase the perception of social presence, which enhances trust. These results are consistent with previous research, arguing that social presence has a strong influence on trust, especially the sense of human worth and communication [18][32][34]. Previous studies found that social presence features built and improved trust in China [11] and Canada [55]. The participants felt that the more information they had, the greater their trust in the seller. A previous study of Facebook found that profiles can help provide consumers gain a sense of the human being selling the product [9], and showing more information can increase social presence [19]. Moreover, previous studies have shown that posting a profile and disclosing substantial information could affect trust [17][56]. Buyers at least needed to know information under main categories, such as location, exchange and refund policies, and payment methods. This is consistent with prior research, which found that the provision of information can help develop trust [17].

The findings show that the ways in which sellers communicate and the speed of response to consumers can affect trust, as also found by a previous study [57]. Furthermore, communication is vital in helping consumers obtain sufficient detail about products [10]. Participants like to see all details and images of the product as these can foster trust. A previous study found these features as essential [52], and both the quality of information [2] and quality of images [57] can develop trust. Therefore, sellers should be obliged to provide key information that is accurate. Also, they should be encouraged to disclose ample information [56].

The app as a source of information. The study findings highlight the need for warranty cues on sellers' profiles, such as product statistics about purchases, including the number of returns and reasons (displayed under the product on the product page), and verification icons (shown as icons next to the account name). These can all affect consumer trust, consistent with earlier research regarding warranting theory, which indicates that information sellers cannot manipulate is more trustworthy and informative

than information provided freely [21]. Statistics on the product page can also enhance trust, as mentioned by the participants, but it is necessary to show the reason for returns.

Both Amazon and Instagram currently provide some verifications, which the participants said they could trust. In our mock-up, the icons reflected verification from the platform, friends and family, and Maroof. It was clear that the participants trusted shops with these verification icons. These findings are consistent with previous studies on the sharing economy (Airbnb [17]), referring to the positive effect of platform verification provided by the app on trust. A previous study has also shown that Maroof verification can increase consumers' purchase intentions [22][32][34]. Indeed, the participants suggested that registration with Maroof should be mandatory.

Previous customers as a source of information. Based on the discussions among participants, information provided by previous customers critically affects their trust. Features representing such information are ratings, reviews, numbers of reviews, photographs, popular products, and the number of followers. Consumers judge the trustworthiness of sellers by checking the features related to previous customers [32][57][58].

Previous studies have suggested that having greater numbers of followers enhances trust [32][34][58]. Comments can be considered reviews on Instagram, but the participants had concerns that sellers could delete negative comments. Therefore, they suggested implementing a reputation system for s-commerce platforms, as also proposed by a previous study on using Facebook for commerce [8].

In agreement with previous research [2], the reputation system played a positive role in generating consumers' trust. Moreover, based on the findings, reviews with photographs taken by customers can help consumers trust a seller and make a purchase decision. This result is consistent with previous studies on Airbnb and Couchsurfing, which found that profiles with ratings and reviews were among the essential features helping hosts establish trust [17][59].

The findings show that obtaining information regarding the product from previous consumers with purchase experience can improve consumer trust, as also found by a previous study [18]. Reviews may add information on aspects and details not provided by the seller. Previous studies have shown similar findings, indicating that customers' reviews include information about the product that can be considered more trustworthy [14] as it reflects the reality of the product experience [25]. This finding is in line with previous research discussing the elements that make a review more trustworthy [28], and examining verified purchases [1]. Furthermore, there are concerns about fake reviews. The findings show that there are elements that may help ensure that reviews are not fake, namely "verified purchase," friends' reviews, photographs posted by customers, reviewers' profiles, and questions and answers (Q&A).

The "verified purchase" icon can show that the person writing the review has actually bought the product. This trust mechanism was introduced to ensure that only a buyer of the product could write a review [1]. Such reviews can increase credibility [60]. Furthermore, a few participants checked the reviewers' profiles after seeing their comments on Instagram to ensure that they were trustworthy (not fake), or to see if they shared the same interests. A previous study suggested providing additional information about the reviewers to help consumers assess the reviewers' credibility [26].

Based on the findings, photographs posted by customers are viewed as credible and can give the sense that the seller is trustworthy, enabling consumers to see what the product really looks like, as also found by a previous study [28]. Photographs taken by customers also provide a sense that the customer has really tried the product [28].

Also, enabling consumers to ask previous customers questions is regarded as a source of trust. Amazon has implemented the Q&A feature in terms of fulfilling a social role to help consumers obtain valuable information from previous customers [49].

Family and friends as a source of information. The findings show that family and friends are essential in terms of their influence on trust and the purchase decision, in line with previous studies [29][32][34]. A previous study of Facebook found that consumers could also be influenced by people sharing the same interests as their friends within their network [46]. They play five main roles: sharing their shopping experiences, sharing trusted shops, giving opinions and advice, sharing their reviews, and placing orders.

Profiles are among the social features that can assist consumers in sharing their previous experience [13]. The participants liked being able to explore what their friends and family had bought and trusted sites. Furthermore, sharing purchased products and trusted shops helped friends make a purchase decision, feeling assured that the seller was trustworthy. These findings are consistent with previous research suggesting the inclusion of social approval features and mechanisms to enhance consumer willingness to purchase the product [30]. Furthermore, the participants might even trust shops trusted by friends of friends, as also found by previous research [61].

Moreover, the platform should provide users with conversational channels through which they can send messages to their friends and ask their opinions. The findings are consistent with previous research showing that friends' advice influences consumer intention [10]. One study found that 50% of Chinese consumers rely on suggestions from their friends and relatives to make a purchase decision [4].

Consumers found that the reviews from peers were the most important [27] and they could rely on them [2]. In line with the findings, previous research has found that the level of trust in reviews differs depending on who writes them, with trust in those by friends being higher than those written by strangers [17][29].

Placing an order through friends or family was an exciting feature for the participants, and one they viewed essential for those not confident about placing an order themselves. This feature would make it easier to identify what their family or friends wanted and order for them, as was common practice for some.

Motivations for customers to interact socially. The findings reveal the importance of social features and how they can enhance trust, but without customer engagement there is no use for these social features. A previous study found that social media tools encourage users to participate and foster contribution [3]. The customers' social interactions can reduce uncertainty and develop familiarity [23]. Therefore, it is essential to encourage customers to use these social features. The results indicate that several factors might increase consumer engagement and interaction.

Reminders to post reviews. Participants mentioned that reminders might motivate them to write a review. A previous study found that Amazon used email reminders asking customers to rate and review products [49]. However, consumers should only receive one reminder as more would be frustrating. Also participants have been found to want control over whether they receive reminders or not [15]. The participants also liked getting a reminder as a message from sellers because they believed that the seller cared and want to know their opinion.

Rating based on points/features/questions. People in the KSA generally do not like writing reviews, but would rather rate specific points or respond to questions indicating why they would give a specific rating for quality, delivery, and so on. Previous studies have shown that helpful reviews require responses of a minimum length and ask reviewers to upload photographs [28]. However, the findings show that the reviews should not include mandatory questions, or have compulsory elements, as consumers may give up and not leave a review at all.

Privacy. Privacy was a concern for the participants. A previous study conducted in the KSA found that the participants had privacy concerns, and would not share information concerning their personal lives or views with strangers, revealing the importance of the ability to manage their privacy [62]. Participants liked having three levels of privacy settings that they could choose from: only for me, only friends, the public. Such privacy options could encourage buyers to write a review or upload a photograph because there is a fear that writing a negative review might have negative consequences. In particular, the participants wanted their friends to see their reviews, but not the public. This reflects the findings of a previous study that concluded users should be provided with privacy settings that would allow them to leave anonymous reviews or control who could see their ratings [12].

Reward system. It seemed that privacy concerns could be mitigated by giving rewards, as well as allowing consumers to decide what to share and with whom. A previous study conducted in China found the same concern regarding privacy, but that it could be mitigated by providing economic rewards [27]. The findings show that participants liked the reward system and considered it would encourage them to leave reviews. It appears that the participants were not interested in gamification or badges. They mostly discussed economic (financial) rewards, preferring open offers from the platform, rather than those attached to a specific shop. Therefore, the reward system is among the essential elements that should be considered when designing s-commerce platforms, as also recommended by a previous study [31][34].

6   Conclusion

This paper has provided an in-depth exploration of the use of social features and commercial functions for conducting business transactions online, specifically in terms of engendering trust in s-commerce platforms. The findings confirm that s-commerce platforms should include both traditional trust mechanisms, such as third-party verification and reviews, and social trust mechanisms, such as profiles and communication channels. In addition, it is essential to provide options for privacy settings enabling users to

choose what to share and with whom. Finally, previous customers' interactions play a crucial role in potential consumers' intention to buy and purchase decisions. Therefore, s-commerce platforms should include elements that encourage such interactions, such as reward systems.

Future studies might be undertaken to identify what may motivate consumers to share and engage in s-commerce platforms to a greater extent across different cultures. Many prior studies have been conducted with samples of university students and future studies should target more diverse groups of participants to enable generalization.

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