Electronic Commerce Research and Applications 27 (2018) 152–162

Contents lists available at ScienceDirect

Electronic Commerce Research and Applications

journal homepage: www.elsevier.com/locate/ecra

Social commerce development in emerging markets

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ARTICLE INFO

Article history:
Received 22 December 2017
Received in revised form 23 December 2017
Accepted 23 December 2017
Available online 26 December 2017

Keywords:
Electronic commerce
Emerging markets
Instagram
Social commerce
Social media
Social networks

ABSTRACT

This study explores the development of a new form of social commerce in emerging markets from three interlocking aspects, namely, social (trust and familiarity), technical (governing form factor and technological utility), and socio-technical (perceived ease of use, perceived usefulness and word of mouth). As social commerce is proliferating and evolving across many emerging markets, we explore how these above-stated constructs manifest themselves in these markets. Our findings show the importance of governing form factors such as mobile system in the development of social commerce in emerging markets. Furthermore, familiarity and trust play a major role in mediating exchange between sellers and buyers and its positive effects in buyers' perceived usefulness of each social commerce platform. Finally, Word of Mouth plays a vital role in building trust and helps in increasing buyer propensity and intention to search for products on these social commerce platforms.

1. Introduction

One of the major factors enabling the survival and prosperity of the human race is its ability to organize its members into self-governing groups that dictate the means and methods by which trade in goods and services is conducted, principles by which regulations are formulated, and processes through which each transaction is governed, mediated and executed. The fundamental demand for the trade of commodities and services gave birth to a plethora of methods and means for mutual trading from the barter system of the early Stone Age to the interconnected world of the e-commerce and social commerce era we live in today.

The introduction of the web enabled commercial entities to expand their reach and access new markets not previously accessible (Laudon and Traver, 2016). This new arena ushered the development of e-commerce that laid the foundation for the exchange of goods and services. Concomitantly, the Internet evolved from static to interactive and reusable pages, allowing even more flexibility and intractability, which in turn led to the advancement of Web 2.0 that empowered users with tools to assist them in content creation, distribution, and consumption. This, in due course, laid the foundation of the prosumer era that is now revolutionizing the Internet as it stands today. The introduction of e-commerce (Becker, 2007; Wigand, 1997) is no longer novel in the information age.

Furthermore, the reach of sociability based on trust (Ba and Pavlou, 2002; Corbitt et al., 2003; Gefen, 2000; Lee, 2015) and familiarity (Gefen, 2000) within e-commerce varies across systems and platforms, respectively. Various studies explored the developmental stages of e-commerce and social commerce. Bakos (1998) explored the emerging role of e-commerce on the Internet, by introducing the functions of these electronic marketplaces, including brokerage between buyers and sellers, facilitation of transaction, and institutional infrastructure. Bakos (1997) also explored the reduction of search cost for consumers and its implications for electronic marketplaces. As for market structure, Yoo et al. (2001) introduced a bifurcation of these electronic marketplaces as either natural or biased and assessed both regarding their respective strength and weakness in creating successful marketplaces.

With interconnected social and semantic webs, users have witnessed the evolution of distinct methods of trading goods and services that deviate from the traditional norms of e-commerce. One of these methods, recently termed social commerce (Turban et al., 2015), has been proposed as "an important platform in e-commerce, primarily due to the increased popularity of social networking sites such as Facebook, LinkedIn, and Twitter" (Liang et al., 2011). Moreover, "[r]efer[ing] to both networks of sellers and networks of buyers, it is the evolution of E-commerce 1.0, which is based on one-to-one interactions, into a more social and interactive form of e-commerce" (Rad and Benyoucef, 2011). We propose that social commerce harnesses its powers from the social capital embodied in and interconnected with social networks and

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https://doi.org/10.1016/j.elerap.2017.12.008
1567-4223/

the interactions through use on a daily basis of sites such as Facebook, Twitter, Instagram, and Pinterest.

In tandem with the advent of Web 2.0 and the emergence of social commerce, research on the social angle of this phenomenon has been increasingly explored. Factors and constructs such as trust and familiarity in the context of e-commerce have been examined extensively (Ba and Pavlou, 2002; Corbitt et al., 2003; Gefen, 2000; Lee, 2015; Pavlou and Gefen, 2004; Siau and Shen, 2003). As for the technical aspect, both technological utility and governing form factor have also been studied. Wang et al. (2005) conducted technological utility factor analysis that demonstrated the importance of network externality in increasing the value and utility users gained from these systems. Furthermore, exploratory research has shown the emergence of mobile systems as one of the major technological systems used in emerging markets to access the Internet (Gibreel et al., 2013, 2015). Here, the governing form factor construct has been proposed to account for the development trend of mobile systems in comparison to other communication technology in the context of social commerce in emerging markets.

As for the socio-technical aspect, most Internet-mediated interactions are based on a set of technological tools that are mashed-up and postulated to be used as mediation artifacts by which the user of the artifact/interface can use it to achieve a certain task. The *technology acceptance model* (TAM) has received wide recognition for coupling two constructs, namely *perceived ease of use* and *perceived usefulness*, to enact an intention to use the technology by the end users. A user's intention and acceptance of a technological system increases if she perceives the system to be both useful and easy to use (Davis, 1989). Gefen and Straub (2000) have argued that they are relevant constructs for understanding the development and usage of e-commerce. Moreover, these e-commerce markets have helped in the development of electronic word of mouth, which is one of the major factors in disseminating information to customers and exchanging recommendations and referrals (Cheung et al., 2008; Gauri et al., 2008).

Nonetheless, these marketplaces have a common platform in which an agent facilitates transactions and incurs a degree of risk in the process. On the one hand, there is a new trend of social commerce within social networks in which users of Instagram purchase products from other users who are selling them without a mediating agent or a return policy. This phenomenon can be seen in many emerging markets: Kuwait (Greenfield, 2013), Saudi Arabia (Almashabi and Nereim, 2015), India (ExplorateIndia, 2015), Egypt (ElSaady, 2016), Thailand (Bivens, 2015), and many other countries around the world that are witnessing a type of leapfrogging to this new form of social commerce. This trend was briefly explored by Gibreel et al. (2015). On the other hand, to create their social commerce platform to ride this emerging trend, many major social network sites have introduced action buttons within their social network. For example, action buttons such as "Shop now" by Facebook (2014), "Buy" by Twitter (Hubbard, 2015), "Buy it" by Pinterest (Desreumax, 2015; Pinterest, 2015) and "Shop now" by Instagram (2016) are being introduced on these social network sites. This research introduces and explores the emergence of this new type of social commerce in emerging markets.

1.1. Definition of e-commerce and social commerce

E-commerce is the process by which entities and individuals exchange commodities online using Internet-mediated systems with the support of both the transmission of data between Internet-mediated systems and electronic monetary systems (Wigand, 1997). *Social commerce* is a variation that evolved from e-commerce by capitalizing on the usage of large reservoirs of social capital and interaction data inherent in such widespread social networks. Its objective is to provide personalized service and product delivery based on consumer preferences, interest, and interactions through the net. Social commerce builds upon the usage of e-commerce. They include the "delivery of e-commerce activities and transactions via the social media environment, mostly in social networks, and by using Web 2.0 tools and capabilities" (Liang and Turban, 2011). Another definition of social commerce introduced by Laudon and Traver (2016) states that "social e-commerce is e-commerce that is enabled by social networks and online social relationships. It is sometimes also referred to as *Facebook commerce*, but in actuality is a much larger phenomenon that extends beyond Facebook." Social commerce is evolving from the usage of users of social network platforms to the progressive Web 2.0 and Web 3.0.

This leads to the current phenomenon that is explored in this article, namely the evolving trait in social commerce in emerging markets by which a third party is no longer necessary to facilitate interaction between buyers and sellers. Furthermore, referral systems are not used to reference a product from search engines (e.g., Google, Yahoo, Bing), social networks (e.g., Facebook, Twitter, Instagram), or social media (e.g., YouTube) to another marketplace (e.g., Amazon, eBay, Kickstarter). In this new phenomenon, the entire process is executed within the social network itself from searching for a product to purchasing the product itself. The "intention" of "liking" the product, and "buying" the product online becomes nearly instantaneous by collapsing search costs through the simultaneous occurrence of search and purchase (i.e., same place and time). Shops set up on social network sites (e.g., Instagram), and do not need to reference the final stage of purchasing the product via another site (e.g., for example, Amazon or eBay), as the social network sellers themselves support the last stage of buying the product. With this perspective in mind, we explore this emerging market and the interaction between buyers and sellers in an online social network, without the need for third-parties to facilitate the final monetary transaction or reduce the risks.

1.2. Problem description, research question, and objective

As this new breed of social commerce evolves in emerging markets, the world is witnessing a change in how sellers and buyers interact. No longer is there an intermediary (i.e., middleman and broker) that assures and guarantees product authenticity or seller return policies. Therefore, buyers and sellers on these platforms must be inclined to develop trust and understand the inherent risk incurred on both sides of these online interactions. Accordingly, trust is mediated by the community of the sellers and buyers themselves, and built within their daily communication and transactions. In these interactions, the building of trust is no longer mediated by one single entity but is built by the community of buyers and sellers themselves through electronic word of mouth and personal interactions. One of the tasks that we tackle is the exploration of factors that could impede or promote the development of this form of social commerce in emerging markets from the buyer's perspective. The paper explores factors (constructs) such as trust, familiarity, governing form factor, technological utility, perceived ease of use, perceived usefulness and word of mouth in the context of social commerce in emerging markets. These factors have not as of yet been well explored in the context of social commerce in emerging markets.

One of the objectives of this research on the development of social commerce in emerging markets is the novelty of the evolution of social commerce that is not desktop based and tends to be more post-desktop based on both of its form factor and features. We are witnessing the development of many forms of Internet-mediated social commerce apps in emerging markets such as M-Pesa from Kenya and Internet-based social commerce in

Instagram from Kuwait. One of these examples is the development of M-Pesa, a mobile money transfer service that pioneered the development of mobile payment in Kenya as far back as 2007. Kenya is considered to be leading the world in mobile money services (The Economist 2015) and is one of the first countries around the world to start the development of mobile money transfer services (Rice, 2007). Many of these new innovations tend to use a mobile form factor by default coupled with low bandwidth connectivity combined with a click-and-brick model and strategy.

This research explores the factors that are influencing the shift from traditional e-commerce to this new form of social commerce in emerging markets. They are categorized into three aspects: *social* (trust and familiarity); *technical* (governing form factor and technological utility), and *socio-technical* (perceived ease of use, perceived usefulness and word of mouth). We explore how these factors have helped in the development of these types of marketplace in emerging markets. The main objective is to understand what factors could impede or promote the development of this form of social commerce communities in emerging markets from the buyer's perspective. We utilize an empirical and quantitative approach for our research methodology.

2. Literature review

2.1. The internet and the web in the development of e-commerce and social commerce

New means of interaction have emerged in many forms to enrich the user's experience on the net through tools and web-enabled technologies. These new tools have paved the future for the development of the web from the early tag system used in *bulletin board systems* (BBS) to the ever-changing web of today with all its new technologies such as the semantic web, semantic search, the Internet of things (IoT) and now the Internet of everything (IoE). These technologies are grouped into generations from the simple, one-way, static and non-reusable Web 1.0 to the current Web 2.0, and Web 3.0 with its bilateral interactive channels and many forms, such as Wikis, blogs, social networks, APIs, and mash-ups. On the technical side, Web 2.0 has been developing on the mobile web, in which users can access content on the go in the post-desktop era of mobility and accessibility. Web 2.0 can be understood as "a collection of open-source, interactive and user-controlled online applications expanding the experiences, knowledge and market power of the users as participants in business and social processes" (Constantinides and Fountain, 2008) Furthermore, "[w]eb 2.0 applications support the creation of informal-user networks facilitating the flow of ideas and knowledge by allowing the efficient generation, dissemination, sharing and editing/refining of informational content." There are five main groups of applications that Web 2.0 has introduced: blogs, social networks, content communities, forums and bulletin boards, and content aggregators. In e-commerce and social commerce, Web 2.0 and Web 3.0 applications are mashed-up to provide a platform for users to be able to exchange commodities.

2.2. Conceptual and design differences between electronic and social commerce

With the development of social commerce, research in its development and how it differs from e-commerce have been explored extensively (Lee, 2015; Ng, 2013; Turban et al., 2015). Huang and Benyoucef (2013) proposed that the social commerce design model consists of four interconnected layers that constitute the building blocks of a social commerce platform. The first inner layer consists of the individual layer (personal, context and activity profile), followed by the conversation layer (content creation and information sharing) and the community layer (community support and connection) which leads to the final outer layer of commerce (group purchase, participation, business function). Huang and Benyoucief proposed that, unlike social commerce, e-commerce has the inner layer of individual and the outer layer of commerce only. Furthermore, they propose that there are two types of social commerce. The first type is found in the Alibaba, Gmarket and Amazon websites, which are based on the one-to-one interaction that is limited to reading comments and reviews from other people concerning a product or service. The second type is based on social network sites, such as Facebook. It has a platform in which users access Starbucks' page to view information about its products and services, but the limitation of such platform is the lack of price information and means of conducting monetary transaction online. This limitation is being mitigated by the introduction of an action buttons.

2.3. Interaction characteristics of electronic and social commerce in emerging markets

Consider the current types of Internet-mediated marketplace, namely e-commerce (Fig. 1), and social commerce (Fig. 2), and emerging markets (Fig. 3). In each, marketplace interaction arrows indicate the steps buyers go through to reach sellers. The text within each step shows the value exchanged between the buyers, sellers, search engine (Google, Bing, and Yahoo), digital advertising agency (DoubleClick), e-commerce sites (Amazon or eBay) or social network sites (Facebook, Twitter or Instagram). We also introduce these types of online mediated marketplaces. Fig. 1 shows the interactions in traditional e-commerce (Laudon and Traver, 2009), in which buyers go through intermediaries, starting from the search engine or ads referring buyers to a marketplace to reach the seller.

For social networks and media (Fig. 2), users gain access to product information and occasionally price information from the social media source. Hence, the starting point is the social network site itself. Nonetheless, the endpoint is still Amazon or eBay, or the product's third-party vendor online.

Fig. 3 shows the process users of social commerce sites in emerging markets go through. They can execute all of the steps necessary to purchase a product online, including searching for product information, price information, and transaction cost. No third party such as Google, Bing or Yahoo is part of the referral system. Further, even Amazon, eBay, etc. are not involved in the transaction phase between the buyers and the sellers. This form of social commerce tends to leapfrog Internet service-based infrastructure such as public key infrastructure and digital signature and develop a click-and-brick model and strategy that blends transaction cost between online and offline face-to-face interaction. The new forms of social commerce in emerging markets tend to be based on post-desktop form factors such as mobile system and tablets.

2.4. Preliminary framework development

Table 1 shows the different aspect, and factors are assigned to each aspect faced by consumers while purchasing products in an online setting.

3. Research framework and hypotheses

3.1. Hypotheses

Recognizing and understanding the difference between familiarity and trust, and which factor precedes the other, are

Fig. 1. E-commerce Marketplace Interaction.

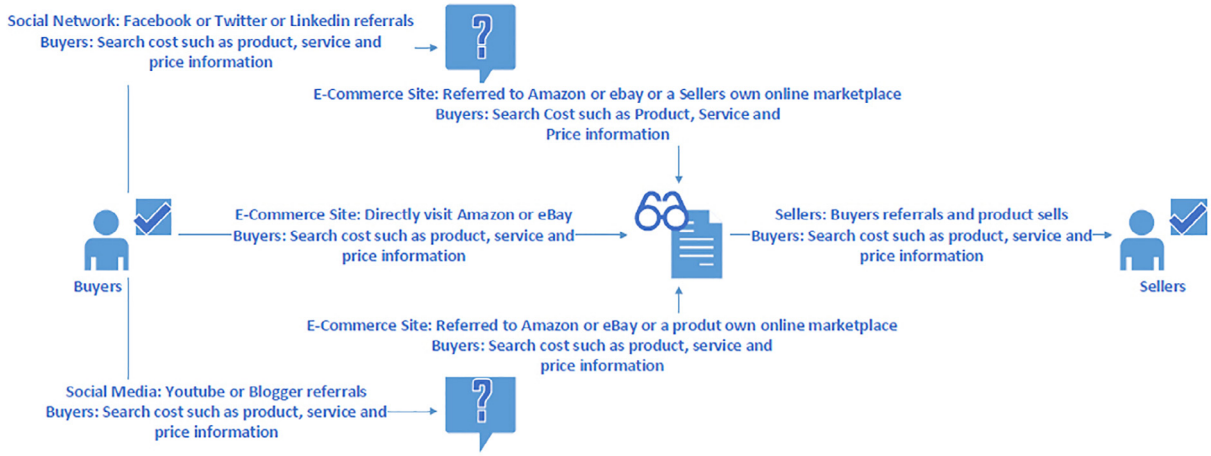

Fig. 2. Social Commerce Marketplace Interaction.

Fig. 3. Social Commerce in Emerging Market Interaction.

important. Luhmann (1982, 2000), assessed familiarity and how it precedes trust, described the distinction between the two clearly and proposed that familiarity precedes trust. Gefen (2000) explored Luhmann's theory in the context of e-commerce. The results show that familiarity with Internet marketplaces affects disposition toward e-commerce and hence we explore this hypothesis in the context of social commerce in emerging markets. We propose:

Hypothesis 1a (*The Buyer Familiarity and Trust Hypothesis*). *Buyer familiarity with a social network system is positively related to trust in Internet vendors (sellers).*

Research conducted on the effect of familiarity on intention to purchase in social commerce has supported "the mediating role of trust in a social network community on the relationship between social interactions (regarding closeness and familiarity) and intention to purchase in social commerce environments" (Ng, 2013). In our context, we explore the role of familiarity in the intention for buyers to buy products through these social commerce apps in emerging markets. This suggests:

Hypothesis 1b (*The Buyer Familiarity and Intention to Buy Hypothesis*). *Buyer familiarity with a social network system is positively related with the intention to buy.*

Further, on the familiarity side of perceived usefulness, research conducted by Gefen et al. (2003) on experienced and inexperienced users of e-commerce has shown that "repeat customers trusted the e-vendor more, perceived the website to be more useful and easier to use, and were more inclined to purchase from it" (Gefen et al., 2003). So we also offer:

Hypothesis 1c (*The Buyer Familiarity and Perceived Usefulness Hypothesis*). *Buyer familiarity with a social network system is positively related to perceived usefulness.*

Table 1
Different Barrier Aspects and Each Factor/Construct Assigned to Each Aspect.

Aspect	Factor/Construct	Research Objective	Source
Social	*Trust*	How does trust in the community of Sellers assist in the purchasing of goods and services online?	Gefen (2000), Pavlou and Gefen (2004)
	Familiarity	How does familiarity with the system assist the purchasing of goods and services online?	Gefen (2000), Luhmann (2000)
Technical	*Governing Form Factor*	Are the technological means available for joining the system?	Gibreel et al. (2013, 2015)
	Technological Utility	How does technological (network externalities) help in increasing user utility of the system he or she is using?	Wang et al. (2005)
Socio-technical	*Perceived Ease of Use*	How easy is it to use the system and how easy can the product be showcased or viewed by potential consumers?	Davis (1989), Gefen and Straub (2000)
	Perceived Usefulness	How useful is the system in providing a platform for consumers to know about products and services?	Davis (1989); Gefen and Straub (2000)
	Word of Mouth	How useful is the system in providing a platform for consumers to exchange referrals and opinion about a product or a service?	Bailey and Pearson (1983), Cheung et al. (2008), Gauri et al. (2008)

Word of mouth has been used in e-commerce to drive sales (Bailey and Pearson, 1983; Cheung et al., 2008). The importance of word of mouth in e-commerce has been expressed by the founder of Amazon, Jeff Bezos: "word of mouth remains the most powerful customer acquisition tool we have, and we are grateful for the trust our customers have placed in us. Repeat purchases and word of mouth have combined to make Amazon.com the market leader in online bookselling" (Gauri et al., 2008). Thus, the next set of hypotheses considers the word of mouth and its effect on trust that drives buyer intention:

Hypothesis 2a (*The Word of Mouth and Trust Hypothesis*). *Word of mouth is positively related to trust.*

Hypothesis 2b (*The Word of Mouth and Intention to Search Hypothesis*). *Word of mouth is positively related to intention to search.*

As stated earlier, TAM has two main constructs that predict Internet or computer-mediated technology usage; the constructs are perceived ease of use and perceived usefulness (Davis, 1989). *Perceived usefulness* is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance." *Perceived ease of use* is defined as "the degree to which a person believes that using a particular system would be free of effort."

Furthermore, research has been conducted on the effect of technological utility on perceived usefulness, and intention to use has been explored and supported (Wang et al., 2005). Hence we propose:

Hypothesis 3a (*The Technological Utility and Perceived Usefulness Hypothesis*). *Technological utility is positively related to perceived usefulness.*

Hypothesis 3b (*The Technological Utility and Intention to Search Hypothesis*). *Technological utility is positively related to intention to search.*

Emerging markets have shown the development of many innovations that have been built on top of new form factors, such as mobile phones, and post-desktop and laptop devices. Examples of such innovation are the usage of Ushahidi (a cell phone-enabled system) for crisis informatics, which uses mobile systems to track crises in inaccessible areas (iRevolutions, 2010), and M-Pesa, which uses mobile phones to send and received money (M-Pesa, 2015). Hence, we offer a new construct, namely the *governing form factor*, which is the subject of the next set of hypotheses. We propose that the usage of different form factors affects the development of market and technological trends in emerging markets. Mobile systems seem to be a governing form factor that has shifted consumers and buyers from desktop-based e-commerce sites, such as Amazon, to online post-desktop based mobile app systems such as Instagram. We next offer:

Hypothesis 4a (*The Governing Form Factor and Perceived Ease of Use Hypothesis*). *The governing form factor in the usage of a mobile system is positively related to perceived ease of use.*

Hypothesis 4b (*The Governing Form Factor and Intention to Buy Hypothesis*). *The governing form factor in the usage of a mobile system is positively related to intention to buy in social commerce.*

Trust in social commerce is essential for encouraging users to use the system (Corbitt et al., 2003; Gefen, 2000; Pavlou and Gefen, 2004), and the effect of trust on intention to purchase is well known (Gefen et al., 2003). So these support the notion that trust affects intention to purchase for online store users. Our next set of hypotheses considers the effect of trust on the correlation between intention to search and intention to buy. This also coincides with the theory of planned behavior and the theory of reasoned action (Fishbein and Ajzen, 1975, 2015). Hence, our hypotheses incorporate the concept of trust and its effect on intention to search and buy, as follows:

Hypothesis 5a (*The Intention to Search and Trust in Sellers Hypothesis*). *Buyer intention to search online is positively affected by trust in the sellers of the social market.*

Hypothesis 5b (*The Intention to Buy and Trust in Sellers Hypothesis*). *Buyer intention to buy online is positively affected by trust in the sellers of the social market.*

TAM has two constructs as preconditions for the acceptance of technology by end users, namely perceived ease of use and perceived usefulness. In the context of e-commerce, perceived ease of use of e-commerce websites increases user propensity to perceive usefulness. Gefen and Straub (2000) explored this notion in the context of e-commerce, and concluded that perceived ease of use affects the propensity for perceived usefulness. They also explored whether a buyer's intention to inquire about a product and the actual act of buying the product itself are affected by perceived ease of use and perceived usefulness in the context of e-commerce. Hence we propose additional hypotheses to explore whether these also apply to social commerce in emerging markets:

Hypothesis 6 (*The Perceived Ease of Use and Perceived Usefulness Hypothesis*). *The perceived ease of use of online social commerce in Instagram is positively related to perceived usefulness.*

Hypothesis 7a (*The Buyer Intention to Search and Perceived Ease of Use Hypothesis*). *Buyer intention to search for products via a social marketplace is positively affected by that social market's perceived ease of use.*

Hypothesis 7b (*The Buyer Intention to Buy and Perceived Ease of Use Hypothesis*). *Buyer intention to buy a product from a social marketplace is positively impacted by the perceived ease of use of the social market.*

Hypothesis 8a (*The Buyer Intention to Search and Perceived Usefulness Hypothesis: Hypothesis*)). *Buyer intention to search for a product via a social marketplace is positively affected by the perceived usefulness of that social market.*

Hypothesis 8b (*The Buyer Intention to Buy and Perceived Usefulness Hypothesis*). *Buyer intention to buy a product from a social marketplace is positively affected by the perceived usefulness of that social marketplace.*

Hypothesis 8c (*The Buyer Intention to Buy and Intention to Search Hypothesis*). *Buyer intention to buy a product from a social marketplace is positively affected by the buyer's intention to search for a product in that social market.*

Fig. 4 presents the full set of hypotheses in our overall model.

3.2. Control variables

We study the control variables, product price, and income in this research. Several studies examined the effect of price on consumer behavior (Lichtenstein et al., 1993, 1988; Zeithaml, 1988). Lichtenstein et al. (1993, 1988) were among the first to propose a construct of price consciousness for consumer perception of price. The authors concluded: "To the degree consumers perceive price in its negative role, they seek to pay lower prices; to the degree consumers perceive price in its positive role, prices at lower levels are more likely to be unacceptable." Hence, we investigate how income and the product price can function as a control variable effect on other constructs, such as trust in social commerce. Hence, we propose two final hypotheses:

Hypothesis 9 (*The Product Price and Level of Trust Hypothesis*). *Product price affects the level of trust.*

Hypothesis 10 (*The Income Level and Intention to Buy Hypothesis*). *Income level affects intention to buy.*

4. Data collection

Data were collected through the distribution of an online web questionnaire through both Twitter and WhatsApp, using an online survey in Kuwait and analyzed using both SPSS and AMOS. The number of respondents was 137. From the sample, 17 respondents had missing data points and were removed. When the income control variable was not available, average income was inserted. Table 2 presents information on the measurement of this study's constructs.

Table 2
Measurement of Constructs with Type and Information.

Name	Type	Measure	Basic Description
Familiarity	Numeric	Ordinal	Likert scale (1 to 5)
Trust	Numeric	Ordinal	Likert scale (1 to 5)
Governing Form Factor	Numeric	Ordinal	Likert scale (1 to 5)
Perceived Ease of Use (PEOU)	Numeric	Ordinal	Likert scale (1 to 5)
Perceived Usefulness (PU)	Numeric	Ordinal	Likert scale (1 to 5)
Technological Utility	Numeric	Ordinal	Likert scale (1 to 5)
World of Mouth (WOM)	Numeric	Ordinal	Likert scale (1 to 5)
Intention to Search	Numeric	Ordinal	Likert scale (1 to 5)
Intention to Buy	Numeric	Ordinal	Likert scale (1 to 5)
Income	Numeric	Interval	From 200 to 5900
Product Price (bought)	Numeric	Interval	From 5 to 1100

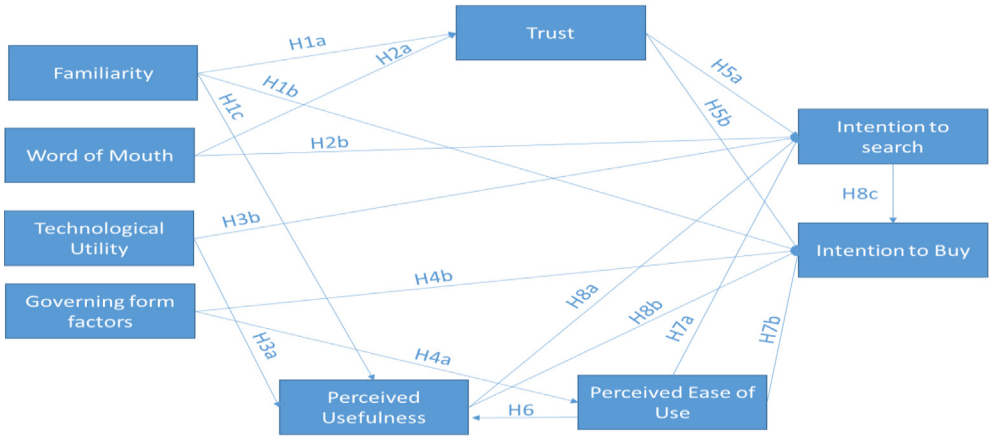

Fig. 4. Research Framework and Hypotheses.

In the sample, 41% were male, and 59% were female. For education, 62% were bachelor degree holders, 21% were college degree holders, 13% were master's degree holders, 2% had at most a high school education, and 2% were doctoral degree holders. The descriptive statistics are shown in Table 3.

Table 3 shows the descriptive statistics. The mean monthly income in the sample was 1642 Kuwaiti dinars (KWD, ~USD 5376). This is above the average Kuwaiti income, suggesting higher-end occupations such as professor, airline pilot and physician. Hence, we deduced that Instagram was not only used by low-income users but also by above-average income users (WorldSalaries, 2005) to buy products and services online. There also was a large dispersion between the mean value of goods bought at KWD 52 (~USD 170) to the maximum value at KWD 1100 (~USD 3601).

5. Analysis discussion and framework implication

5.1. Preliminary data analysis

Preliminary data analysis and model assessment were conducted using the following phases. The first phase assessed normality with an appropriate test. For normality testing of skewness and kurtosis, Hair et al. (2013) and Byrne (2013) suggested that a dataset should be considered normal if skewness is between −2 to +2, and kurtosis is between −7 to +7. For skewness, all items satisfied the −2 to +2 range, and for kurtosis, all items were in the range of −7 to +7 (Kline, 2015). The second phase consisted of Kaiser-Meyer-Olkin (KMO) and Bartlett's tests. The KMO measure of sampling adequacy resulted in 0.74 (above 0.60 is acceptable) (Allen and Bennett, 2010). For Bartlett's test, the results were significant (.000) as Bartlett results less than <.001 are considered significant. The third phase, the measurement model, was analyzed for convergent validity and discriminant validity.

In the case of convergent validity, items with factor loadings below 0.5 were removed, and all items were above 0.5. The majority of item loadings exceeded the level of 0.6 with more than 60% of items exceeding 0.7 (Hair et al., 2013). In the case of discriminant validity, there was no strong cross-loading, and all factor correction matrices were below 0.7. As for reliability, Cronbach's alpha, a method for measuring the internal consistency of a construct, was conducted and results were uniformly above .70. Familiarity was .72, trust was .83, form factor was .84, perceived ease of use was .88, perceived usefulness was .92; utility was .86; word of mouth was .90; intention to search was .79; and intention to buy was .77 (Kline, 2015).

5.2. Model assessment

Concerning model fit, CMIN/DF was 1.501, which is within the threshold between 1 and 3 (Hu and Bentler, 1999). RMSEA was 0.065, and was acceptable for the cut-off criteria. CFI was 0.977, SRMR was 0.058, and Pclose was 0.276, all beyond the appropriate threshold. Fig. 5 and Table 4 present the model results for the hypothesis tests using confirmatory factor analysis. The estimated *p*-value and status of the hypothesis are noted as either supported or rejected.

Table 3
Descriptive Statistics.

Variables	Min	Max	Mean	Std. Dev.
Income	200.00	5900.00	1642.77	1071.56
ProductPrice	5.00	1100.00	52.38	109.36
IntentionToSearch	1.26	4.66	3.38	0.72
Familiarity	0.64	2.74	2.07	0.38
IntentionToBuy	1.61	5.48	3.83	0.78
Trust	1.19	4.41	2.66	0.56
Utility	2.24	5.00	4.19	0.65
FormFactor	1.85	5.55	4.65	0.72
WOM	0.86	4.83	3.11	0.83
PEOU	2.56	4.04	3.53	0.40
PU	1.14	4.22	3.07	0.68
Efficacy	1.26	3.85	3.03	0.60

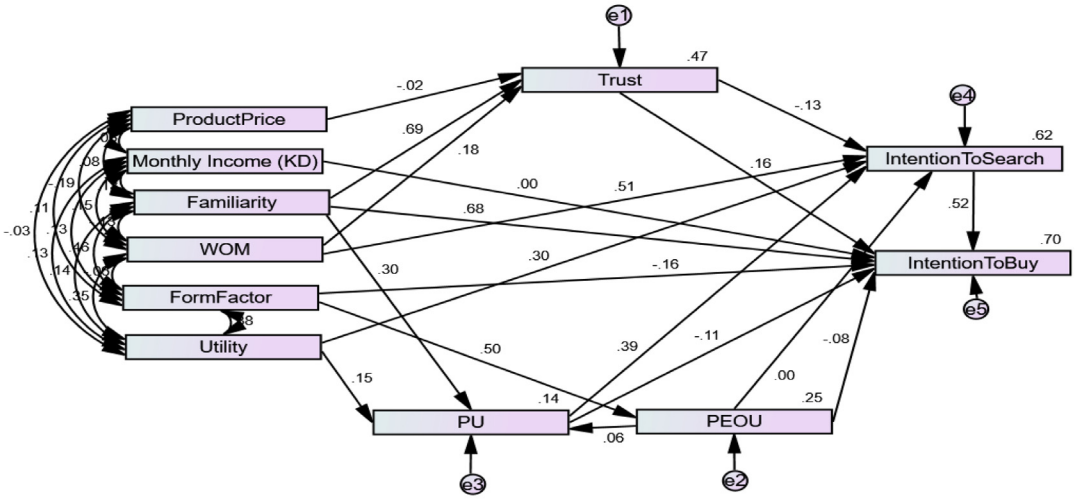

Fig. 5. Model Results.

Table 4
Hypothesis Results.

Independent	Hypothesis	Dependent	Coef	SE	CR	Signif	Status
Familiarity	H1a→	*Trust*	1.015	0.100	10.186	***	Supported
Familiarity	H1b→	*IntentionToBuy*	1.422	0.155	9.163	***	Supported
Familiarity	H1c→	*PU*	0.531	0.157	3.385	***	Supported
WOM	H2a→	*Trust*	0.121	0.046	2.616	**	Supported
WOM	H2b→	*IntentionToSearch*	0.429	0.051	8.389	***	Supported
Utility	H3a→	*PU*	0.159	0.090	1.766	.077	Rejected
Utility	H3b→	*IntentionToSearch*	0.318	0.067	4.743	***	Supported
FormFactor	H4a→	*PEOU*	0.278	0.044	6.299	***	Supported
Form Factor	H4b→	*IntentionToBuy*	−0.182	0.070	−2.582	**	Supported
Trust	H5a→	*IntentionToSearch*	−0.159	0.073	−2.176	*	Supported
Trust	H5b→	*IntentionToBuy*	0.221	0.094	2.348	*	Supported
PEOU	H6→	*PU*	0.099	0.151	0.656	.512	Rejected
PEOU	H7a→	*IntentionToSearch*	−0.006	0.103	−0.062	.951	Rejected
PEOU	H7b→	*IntentionToBuy*	−0.151	0.115	−1.317	.188	Rejected
PU	H8a→	*IntentionToSearch*	0.400	0.061	6.542	***	Supported
PU	H8b→	*IntentionToBuy*	−0.131	0.069	−1.891	.059	Rejected
IntentionToSearch	H8c→	*IntentionToBuy*	0.583	0.064	9.119	***	Supported
ProductPrice	H9→	*Trust*	0.000	0.000	−0.225	.822	Rejected
Income	H10→	*IntentionToBuy*	0.000	0.000	0.073	.942	Rejected

Notes: Signif: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

5.3. Hypothesis results

Our objective has been to examine the factors and constructs that promote the development of social commerce in emerging markets such as Kuwait. We now present the results of our hypothesis testing. The Buyer Familiarity and Trust Hypothesis (H1a) was supported: familiarity does help in building trust in sellers for social commerce users in emerging markets. In addition, the Buyer Familiarity and Intention to Buy Hypothesis (H1b) was supported based on responses related to user access to Instagram and its facilitation of online purchases. In addition, the Buyer Familiarity and Perceived Usefulness Hypothesis (H1c) was also confirmed. Comprehension of the system helps users to assess its value in purchasing products and services, even if there is no mediating agent to support return policies or refund policies.

In addition, our Word of Mouth and Trust Hypothesis (H2a) was also confirmed. Previous studies have shown a strong relationship between information in the form of word of mouth and exchange of information usefulness as a strong indication of impacting buyers decision within online communities and e-commerce sites (Cheung et al., 2008). Further, the Word of Mouth and Intention to Search Hypothesis (H2b) was found to be true, so word of mouth is positively related to intention to search.

The Technological Utility and Perceived Usefulness Hypothesis (H3a) was rejected, which is contrary to prior research on the positive effect of network utility on perceived usefulness (Wang et al., 2005). On the other hand, the Technological Utility and Intention to Search Hypothesis (H3b) was confirmed, in line with the same prior research. We also found that, for our data, the Governing Form Factor and Perceived Ease of Use Hypothesis (H4a) were confirmed. This shows the importance of mobile systems as a form factor for users in emerging markets to access the Internet. Further, our test of the Governing Form Factor and Intention to Buy Hypothesis (H4b) also was confirmed, but with an inverse relationship that necessitates further research.

The Intention to Search and Trust in Sellers Hypothesis (H5a), which involves the buyer's intention to search online being positively affected by trust in the sellers within the social market, was confirmed for our data, but it has an inverse relationship, which is contrary to what Gefen (2000) found. The Intention to Buy and Trust in Sellers Hypothesis (H5b) was also confirmed, so buyer intention to buy online was positively affected by trust in the social market.

The Perceived Ease of Use and Perceived Usefulness Hypothesis (H6) was rejected. This result is contrary to previous research in e-commerce that showed perceived ease of use significantly affects perceived usefulness (Gefen and Straub, 2000). Further research should be carried out to explore this relationship in the context of social commerce in emerging markets. In the case of the Buyer Intention to Search and Perceived Ease of Use Hypothesis (H7a), buyer intention to search for products via a social marketplace was not found to be positively affected by that social market's perceived ease of use. This is also contrary to Gefen and Straub's (2000) findings. In the case of the Buyer Intention to Buy and Perceived Ease of Use Hypothesis (H7b), the buyer's intention to purchase a product from a social marketplace being positively affected by the perceived ease of use of the social market also was rejected, supporting (Gefen and Straub, 2000).

The Buyer Intention to Search and Perceived Usefulness Hypothesis (H8a) was confirmed by our data, in alignment with Gefen and Straub (2000). In the case of the Buyer Intention to Buy and Perceived Usefulness Hypothesis (H8b), our results suggest that this hypothesis should be rejected. This result is contrary to Gefen and Straub (2000), which found an effect of perceived usefulness on buyer purchasing behavior. For the Buyer Intention to Buy and Intention to Search Hypothesis (H8c), buyer intention to buy a product from a social marketplace was positively affected by the buyer's intention to search for products in that social market, according to the test of our data, confirming H8c. This matches the theory of reasoned planned behavior and the distinction between intention and actual behavior.

In the case of the Product Price and Level of Trust Hypothesis (H9), product price did not affect the level of trust, so it was rejected. Finally, for the Income Level and Intention to Buy Hypothesis (H10), income level also did not affect intention to buy, so the hypothesis was also rejected. This shows that low-income users were not alone in using the social network platform that we assessed.

6. Discussion and conclusion

The development of Internet-mediated services in the form of e-commerce in emerging markets has been proposed as one of the main Internet-mediated services that could further the development of a given state economy (Humphrey et al., 2003). Research on the barriers to e-commerce in these emerging markets has

shown that lack of telecommunication infrastructure, high access cost and access to computer equipment are major technological barriers to the development of e-commerce in emerging markets (Lawrence et al., 2010). Hence, issues such as Internet-based infrastructure both in technical form such as fiber optics and software form such as public key infrastructure and digital signature hinder the develop of these systems within a given state (Lawrence et al., 2010). Nonetheless, recent research conducted in the area of Internet access has shown that mobile phones are playing a major role in providing Internet access to the developing world (Gibreel et al., 2013), which in turn leads to usage of the click-brick model and strategy. Examples of this type of click-brick model are M-Pesa in Kenya and Talabat in Kuwait. Instagram enabled social commerce in Kuwait follows the same click-brick model approach.

This model leapfrogs the infrastructure barriers and software barriers faced by e-commerce using the mobile system and click-and-brick strategy, which supports our hypothesis that form factor in the form of mobile phones using mobile systems is positively related to perceived ease of use to buy products online. On the other hand, consumer rights policies that are found in well-established e-commerce sites such as Amazon's "you can return anything, at any time, for any reason" (Warrington et al., 2000) are not available in these types of social commerce that are based on Instagram. Hence, our research has explored the trust factors related to Instagram sellers from the buyer's perspective. The results support the idea that trust in the sellers plays a significant role in a buyer's intention to buy, reducing risk derived from not being able to return the product after the time of purchase.

In conclusion, form factor (mobile systems, cell phones) is playing a major role in allowing users to access information and services in emerging markets. Furthermore, familiarity had a significant effect on building trust toward the users in the realm of social commerce in emerging markets (Instagram), even when return policies are not enacted or stated from these online sellers on Instagram. Moreover, word-of-mouth and technological utility factors within these social network sites prompted increased use of the search tool by its users, which helped user intention to search for products on these social network sites (intention to search). Finally, it became apparent that the intention to search supported the intention to buy within the realm of these social commerce sites in emerging markets.

6.1. Research and practical implications

Overall, the implication of these new trends falls into two categories, micro-level and macro-level implications. On the micro-level, due to the shift in form factor (i.e., mobile phones), the ease of use and form factors of mobile phones helps users in these markets to access products and services easily and quickly. This in turn facilitates price comparisons across sellers both on e-commerce and social commerce sites, empowering users with more information and reducing the power of information asymmetry that sellers tend to have as an advantage against buyers.

Social network sites are encouraged to set up a one-stop access point in which users in these emerging markets are able to merge buying online with offline interaction; hence, offline interactions that are mainly based on paying for the product could be merged online with ease to use features that bypass the lack of an Internet-mediated financial system within these emerging markets. On the macro-level, buyer and seller trust in these systems place government officials in a quandry. On the one hand, the downside to these markets from the perspective of government is that these markets are generally not taxed or regulated to ensure either consumer rights or protection (i.e. return product policies). Often, the economic flow of products and services are not even tracked for the purpose of taxation. On the other hand, governments, in general, tend to promote the development of entrepreneurial communities within their countries which in turn promote *small and medium-sized enterprises* (SMEs) and increase economic transactions.

Hence, looking at both sides of the coin, we suggest that government policy-makers consider these two implications in their policy formulation. First, we propose creating policies that are more "Internet friendly" to promote this new form of social commerce in emerging markets and provide incentives for sellers and buyers to report their income for tax purposes in exchange for consumer rights for buyers and ease of use in establishing their businesses online through these systems for sellers. Second, governments should start promoting more streamlined regulations for establishing businesses online and accelerating the process of business registration using online tools.

Some of the major emerging market regions around the world where this form of social commerce is growing have the highest numbers of days required to establish a business and the highest cost of establishing or registering a business. For example, in the Middle East, where Kuwait is located, it takes 20 days to register a business and the equivalent of 26% of per capita income for registration fees. In other areas, such as sub-Saharan Africa, it takes 27 days to start a business and registration fees equivalent to 54% of per capita income. If we compare these numbers to Europe and Central Asia, which take 10 days and only 4% of per capita income or even high-income OECD countries, which take eight days to establish a business and only 3% of per capita income (World Bank, 2016), we suggest and encourage facilitating business registration. This can be achieved via lowering registration cost by using online systems that social commerce in emerging markets is built upon, essentially forming a public–private partnership. Hence, new policies are needed to reflect the changing landscape of today's consumers and producer/seller markets. The more these emerging markets are connected through the Internet, the more frictionless information systems will provide the means to communicate, explore, develop and exchange goods and services, thereby paving the way for the prosumer era is that is developing in many emerging markets.

6.2. Limitations and future research

The limitations lie in the context of the social network that we explored, Instagram. Hence, other research studies can study the development of this form of social commerce in other social network sites, such as Facebook, Pinterest or Twitter. Further studies should look into gender and social status in the development of social commerce in emerging markets. Nonetheless, this research sheds light on a trend that is shaping commerce in emerging markets. The notion of sellers online bypassing large and well-known companies in e-commerce such as Amazon, eBay or Alibaba or large e-commerce sites in their own local markets is now observed in emerging markets. Hence, looking at other aspects of how these markets are launching new types of social commerce will further develop our understanding of how these marketplaces are developing, and why they are not joining other well-known and established online marketplaces, such as Amazon, eBay and Alibaba, or local marketplaces such as Blink in Kuwait.

Future research should consider this new trend and how it is shaping commerce around the world, especially the notion of trust and risk in the eye of the buyers and sellers. As emerging markets leapfrog into the current mobile and post-desktop era, we observe innovations streaming from all corners of the world, including countries such as Kuwait, Sudan, Kenya, India, Malaysia, Saudi Arabia, UAE and Thailand. At some point, they will shape how emerging markets buy and sell products online.

Appendix 1. Questionnaire

Construct/Source	Questionnare (Likert scale: Strongly disagree, disagree, neutral, agree, strongly agree)
Familiarity (Gefen, 2000)	1. I am familiar with Instagram. 2. I am familiar with searching for products on Instagram. 3. I am familiar with buying products on Instagram.
Trust (Pavlou and Gefen, 2004)	1. Sellers in Instagram are in general reliable. 2. Sellers in Instagram are in general honest. 3. Sellers in Instagram are in general trustworthy.
Governing Form Factor (Gibreel et al., 2013, 2015) (Proposed by this paper)	1. Mobile devices have encouraged me to buy from Instagram more than other devices (desktop or laptop). 2. Mobile devices is widely used to buy products on Instagram more than other devices (desktop or laptop).. 3. Mobile systems have helped a lot of people in accessing products online more than other devices (desktops or laptop). 4. Mobile systems have supported many people in sharing products cost and information online more than other devices (desktop or laptop).
Perceived Ease of Use (Gefen and Straub, 2000)	1. Instagram is easy-to-use. 2. It is easy to become skillful at using Instagram. 3. Learning to operate Instagram is easy. 4. Instagram is flexible to interact with. 5. My interaction with Instagram is clear and understandable. 6. It is easy to interact with Instagram.
Perceived Usefulness (Gefen and Straub, 2000)	1. Instagram improves my performance in product/service searching and buying. 2. Instagram enables me to search and buy product/service faster. 3. Instagram enhances my effectiveness in product/service searching and buying. 4. Instagram makes it easier to search for and purchase product/service. 5. Instagram increases my productivity in searching and purchasing product/services.
Network Utility/Technology Utility (Wang et al., 2005)	1. From a technical viewpoint, Instagram is a useful technology. 2. From a technical viewpoint, Instagram is a wonderful innovation. 3. From a technical viewpoint, Instagram is a valuable photo sharing/shopping/messaging service.
Word of Mouth/Info Usefulness (Bailey and Pearson, 1983; Cheung et al., 2008)	1. The comments in Instagram are valuable. 2. The comments in Instagram are informative. 3. The comments in Instagram are helpful.
Intention to Search for Product (Gefen and Straub, 2000)	1. I would use Instagram to find out about the producer of the product or its maker. 2. I would use Instagram to inquire about products reviews and comments.
Intention to Buy Product (Gefen and Straub, 2000)	1. I would use my money to purchase from sellers in Instagram. 2. I would not hesitate to provide information to sellers in Instagram. 3. I am very likely to buy products from sellers in Instagram.

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