BRAND VALUE CO-CREATION IN THE SOCIAL COMMERCE ERA: EMPIRICAL EVIDENCE FROM IRAN

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ABSTRACT

Brand value co-creation occurs when customers provide informational input to brand owners, which can be used to develop, refine or extend brands. Brand co-creation is an attractive and inexpensive marketing strategy for firms entering new markets and developing new brand meanings. The upward trend in social media use has transformed e-commerce by adding social support and information sharing features, resulting in social commerce. This research tests a framework that examines the e-commerce opportunities for firms from a branding perspective. Using a survey of Iranian consumers, SEM- PLS was used to analyse the data. Results provide new insights for a strategic approach to social media use in relation to the firm's value co-creation objective. The results confirm the research model and emphasise the importance of social commerce constructs, social support, and relationship quality in brand value co-creation. The theoretical and practical implications are provided.

Keywords: Brand value co-creation; e-Commerce; Social media; Social commerce; Iran

1. Introduction

Consumer usage of social media (SM) systems has dramatically evolved in recent years. Consumers have benefited from their ability to use SM on mobile phones to research products and services [Hajli, 2014]. The widespread adoption and reliance on social media as a pre-purchase research tool is an important e-commerce phenomenon [Lin, Wang, & Hajli, 2019]. Consumers can learn of the consumption experiences and emotions of more experienced consumers. Less experienced consumers can gain perspective and learn from others by using social media systems that enable easy consumer-to-consumer information sharing [Nadeem, Juntunen, Hajli, & Tajvidi, 2019a].

As consumers read and share purchasing experiences when e-shopping or via often-times branded SM communities, they can connect more closely with brands and co-create value for those brands by adding their opinions, ideas, experiences, usage tips, feedback, etc. [Archer-Brown & Kietzmann, 2018; Bazi et al., 2019]. As a result of the emergence of social network usages such as Facebook, Twitter, Instagram, and many others, firms can directly communicate with their customers to perform market research, introduce new products and services, and benefit from

customer participation in branded SM communities [Kunja & GVRK, 2018] such as helping to promote and co-creation a brand [Tajvidi, Richard, Wang, & Hajli, 2018; Yu, Tsai, Wang, Lai, & Tajvidi, 2018]. Consumer co-creation of brand value is studied in prior services marketing research. The customer is recognised as very pivotal to value production processes [Hajli, Shanmugam, Papagiannidis, Zahay, & Richard, 2017; Vargo & Lusch, 2004; Gbadamosi, 2019].

Managing a brand includes developing a set of important benefits that distinguish its branded offerings from those of other rivals. Further, brand managers choose how brands are promoted, how the brand communicates its value proposition to target markets in the form of brand commitments and the brand promise [Gbadamosi, 2015; Piehler, Grace, & Burmann, 2018]. Brand managers are charged to develop the economic value and profitability of their branded products and services. This research supports brand managers by examining how brand values are changing due to the consumer brand co-creation processes, largely due to the closer consumer-brand connection made possible by creative social media applications and consumer communities.

Consumers can give ideas to brand managers for the product line and brand extensions. If a consumer idea for a product extension or new usage is profitable for the brand owner, the consumer helped to co-create the brand, raising brand equity, resulting in higher market share and economic profitability. An example of consumers co-creating and adding value to a brand occurs when a customer posts an SM video of them using a branded product more efficiently or for a new purpose. For example, an electrician could post a video explaining the differences in adhesive duct tapes, and recommend that a much less expensive tape is suitable. If the video is popular amongst electricians, then the vendor of the less expensive tape could prosper. Another illustration of a consumer co-creating value for a branded product is the scenario from a prior decade where a consumer suffering from high blood pressure takes Minoxidil and tells their doctor that their hair was somehow growing thicker. If the brand manager learned of the new product usage, they could market their product with a new value proposition (Minoxidil was re-branded as Rogaine). We contend that consumers, by their SM information sharing, are increasingly co-creating brands and brand value. This manuscript explores this phenomenon.

This research examines brand co-creation in social commerce channels, platforms, and communities to see how social media system usage creates value for firms in their branding strategies. An original contribution of this research is to utilise an SM usage lens to examine brand co-creation by examining the research model using data from a vibrant but less-understood country; Iran. Iran currently has 49 million active social media users (nearly 50% of the population), and a young population. In 2017, 23 million people joined a social media network for the first time, with Telegram the most popular app (40 million users in Iran) followed by Instagram (24 million users in Iran) [Financial Tribune, 2018].

As discussed below this research adapts recent validated research models [Bazi et al, 2019; Hajli et al;2017; Tajvidi et al, 2018] that examine how social support and relationship quality work toward brand co-creation (see Fig.1 below). This research examines the impact of social commerce usage on social support and relationship quality consumers experience when using SM. We expect that consumers' experienced level of social support also affects their experienced relationship quality with a brand. The impact of relationship quality on value co-creation is also examined, as are the effects of privacy concerns and their impact on customer social media information sharing behaviour.

The next section reviews the supporting literature for our research model, followed by the formal statement of each research hypotheses. Next, the research methodology is presented, followed by the research results, discussion of research and practical implications, and concluding remarks.

2. Theoretical base of our research and hypotheses development

This section discusses the theory to support our model, after which the hypotheses are presented.

2.1. Social commerce and value co-creation in branding

As societal usage of SM websites such as Twitter, Facebook, and Instagram becomes more ingrained in daily activity, new innovative marketing and business e-commerce strategies and business models are made possible [Hajli, 2019; Bazi et al 2019; Wang et al 2019]. Zhou and Zhang [2013] refer to the merging of SM communication systems and e-commerce transaction systems as *social commerce* and suggest that social commerce is an interdisciplinary topic of interest related to business, people, information, and technology. They believe these components are independent and require alignment, integration, and strategic fit with one another to attract consumers. Indeed, social commerce is evolving rapidly, changing business practices, changing consumer consumption processes and market demand [Zhou et al., 2013].

Hajli [2015] categorises the consumer-generated ratings, reviews, referrals, and recommendations regarding important *social commerce constructs.* The interactions and mutual support of consumers via access to product reviews and recommendations are shown to support positive outcomes such as establish trust in e-commerce systems

[Hajli et al, 2017b; Sheikh, Yezheng, Islam, Hameed, & Khan, 2019]. This research examines the effect of these social commerce constructs on other important consumer-vendor phenomenon such as relationship quality, the level of social support experienced by consumers.

Consumers using social commerce constructs can affect their purchase decision-making. For example, by sharing information from trusted sources, including experts or confirmed previous buyers, online product reviews can affect consumers' actual purchase behaviour. Before making a purchase decision, customers obtain product information through the discussion of a product's quality, price, and variety with their peers; compare alternative opinions in the form of reading positive and negative product reviews; and also observe and learn about the intended product from the other consumers [Wang & Yu, 2017]. With an increase in the ways customers explore the information within a social commerce system, the purchase will increase. More information seeking can result in increased likelihood to purchase, thus, by easy access to the search engines and enhancing trust in the embedded contents, e-vendors can increase the liklihood of purchase [Hajli et al, 2017]. Therefore, we examine online product reviews to examine their influence on customers' purchase intention.

Sharma et al, [2019] argue that recommendations made between consumers and referrals increase trust in social commerce websites and have a great impact on building trust in social commerce climate. Conscious participation, social interaction, and enthusiasm can promote the generation of both functional and social value co-created by customers. While customer engagement has been considered a competitive advantage to enterprises, customers' value will be vital to increase vendor market share and increase consumer interest in vendor-gnerated social commerce content [Zhang et al, 2017].

Social commerce leverages social networking capabilities to provide an environment that encourages consumer information sharing. The informativeness of the product usage information provided in consumer reviews is greatly magnified when the content is provided in a short video using the consumer group's terms and language. Prior research affirms that consumers share personal experiences and insights about purchasing products or services [Li, 2017]. Hajli [2015] discusses that social commerce systems provide consumers with an arena to exchange content and self-disclose personal consumption-related information. Such capabilities socially support fellow consumers allowing them to communicate and recommend products and services. Thus we hypothesise:

H1: Social commerce constructs support higher levels of perceived social support

The consumer rating, reviewing and recommendations (the social commerce constructs) influence peers in social commerce platforms. Previous research argues social commerce constructs influence relationship quality [Tajvidi et al, 2018] which is the strength of the relationship kept with other partners (s) in a social system. The argument is that when people perform more social interaction on these platforms, they develop a relationship with other peers through their activities. Hence, we hypothesise:

H2: Social commerce constructs support higher levels of relationship quality

2.2.   Social support

Social support has been defined as "an exchange of resources between two individuals perceived by the provider or the recipient to be intended to enhance the wellbeing of the recipient" [Shumaker and Brownell, 1984, p.11]. Social support can occur amongst people that belong to the same network, or forum [Shumaker & Brownell, 1984]. Essentially, social support reduces life's stressful events on a person's health. Social support acts as a stress buffer through either the supportive actions of others, such as advice and reassurance, or the belief that it is available when support is needed (therefore the person feels supported). Supportive actions are thought to enhance coping performance while perceptions of available support reduce the stress of threatening situations [Lakey & Cohen, 2000]. This research examines the phenomenon of social support gained from SM communities.

Finlay et al [2018] suggest that three superordinate social support themes have emerged: investing in the new normal, growth facilitation through social evolution, and the nurturing environment. According to these authors, these themes collectively illustrate the internal processes and structures that enable the support group to function and develop effectively. These themes help create suitable promotion and management of positive, effective intra-group social support, practice self-care, and healthy interpersonal dynamics [Finlay, Peacock, & Elander, 2018]. Members of SM communities receive social support.

Social support has been measured using the dimensions of *Informational Support* and *Emotional Support* experienced by SM participants. The interaction amongst users of social networking sites (SNSs) who are familiar members and exchange information regularly can increase online emotional and informational support. This closeness and the supportive environment - termed online social support [Hajli, 2014] can provide important decision criteria, and important results such as increase the perceived credibility of information obtained through e-word of mouth advertising [Hajli & Lin, 2016]. Social support is also provided when consumer observational learning is made possible via SM video-based product reviews [Wang & Yu, 2017]. High levels of SM information-sharing (a part of social support) are believed to improve the consumer experience of relationship quality because consumers can gain

textual information from each other about a market offering, which can enhance relation quality leading to increased brand loyalty [Hajli, 2014].

The influence of social support can be measured by the consumer's evaluation of the relationship quality of the social commerce groups that provide informational, emotional, and social support. Commitment, trust and satisfaction measure the relationship quality, and relationship quality can potentially enrich social commerce intention while social support can increase trust, commitment, and satisfaction, enhancing customer loyalty [Hajli, 2014]. Thus, we hypothesise:

H3: Social support contributes to higher levels of relationship quality

2.3. Identifying drivers of brand value co-creation

Brand value co-creation has been defined as an interaction between the customers and the firm to co-create the brand experience [Merz *et al.,* 2018]. Brand co-creation occurs at different steps in the consumption process. Brand managers are advised to re-examine brand value co-creation in the current social commerce era. Digital marketing campaigns can inexpensively reach many consumers who often have interesting and unexpected product usage ideas and experiences. While the data mining of consumer sentiment can provide interesting and actionable insights, research also highlights the role of ethics in using social commerce for co-creation [Nadeem, Juntunen, Hajli, & Tajvidi, 2019b; Wang, Tajvidi, Lin, & Hajli, 2019].

Further, SM marketing can help firms increase market share [Hajli et al., 2017] therefore, vendor usage of consumer sentiment data will continue. Indeed, Kim [2018] reports that higher SM information sharing levels increased sales on the respective social media platforms. A recent SM study of Japanese sports fans was conducted by Yoshida et al [2018] to examine drivers of brand loyalty. Online brand community identification and opinion seeking are the main factors that increased SM-based engagement with a sports brand. Moreover, they found that fostering identification within the brand communities users is not sufficient to influence purchasing behaviour; rather engagement is a crucial requirement that leads to actual purchase behaviour [Yoshida et al, 2018].

Vendors that host a product-themed social media group or community can perform continual customer sentiment analysis. Vendors can also provide branded product reveals and enlist consumers to comment and therefore be a part of a value creation process for business [Hajli, 2014]. An advantage of using SM is that the consumer feedback data that is gathered is often global, or in markets that are hard to access (such as the sampling population of this research; Iran). Customers enjoy participating in online communities of a favourite brand, not only to socialise but also to promote and engage with brands, share their insights, and self-promote. Constant consumer reviews provide a real opportunity for firms to interact with their customers, recognise their changing needs, and ask them to contribute their ideas for brand extensions and refinements, and new product uses. Businesses can explore consumers' latent needs and desires [Ind, 2018], and attempt to evolve their product line. Due to the ubiquity of social media on smartphones, the social commerce context is suitable for this research.

The successfulness of brand co-creation depends on the firms' ability to identify and leverage customers' information and experience [Merz, Zarantonello, & Grappi, 2018]. SM technology's capability to host consumer informational reviews, etc., should increase the opportunity and ability to understand better the consumer experience, which if harnessed, can contribute to higher levels of consumer involvement in brand value co-creation. Thus,

H4: Social commerce constructs contribute to higher levels of co-creation in branding

The dialogue amongst customers in online branded SM communities is the data input that vendors can utilize to develop relationship marketing efforts, which can also be useful for co-creation of brand value[Hajli et al., 2017]. Ramaswamy and Ozcan [2018] introduce the *envisioning approach* to conceptualise brand co-creation, bringing a unifying perspective to explaining the co-creation process. By using interactive system-environment theories, whose heterogeneous relations can be configured anywhere in the "value creation system", regardless of whether it concerns activities of "producing", "exchanging", or "using" goods and services, brand co-creation can occur. This postulation then leads to a conceptualisation of interactive platforms that afford a multiplicity of interactive system-environments that create dialogue and ideas. They [Ramaswamy & Ozcan, 2018] define an interactive platform as "…an instantiation of an agential assemblage, composed of heterogeneous relations of artefacts, processes, interfaces, and persons, affording a multiplicity of interactive system-environments". Hence, customers can help in the co-creation of brand value in two ways: through their ability and willingness [Merz et al., 2018].

How an individual perceives the privacy and security in social networks is greatly linked to their trust level [Wang & Lin, 2017]. Social networks that enable commercial transactions between sellers and users are expected to consider user information privacy and security as essential in their marketplace implementations [Sharma et al., 2019]. While we do not study trust in the current research, we contend that when a consumer believes an SM community has a high relationship quality (people are helping each other), they will provide more of their insights and suggestions which help evolve brands. Thus, we hypothesise:

H5: Relationship quality contributes to higher levels of co-creation in branding

Examining the effects of consumer privacy concerns

SM information sharing systems can create a record of an individual's comments in a virtual public space. Therefore, the SM participant loses control over the privacy of their posted information [Islamet al, 2017]. Vendor enforcement of general privacy settings and protections of community members and the information being posted is reportedly improving [Jeong & Kim, 2017]; however, consumers who believe they are vulnerable to privacy breaches can reduce their SM participation to their information privacy concerns [Youn, 2009]. People reason that they can never know how other people, businesses, and governments have used their information, therefore some consumers express uncertainty and concern about how much information to share [Acquisti et al, 2015]. Privacy Risk has been studied previously (Featherman et., al 2010).

Consumers with strong privacy concerns, want to control the access that companies have to their data [Ketelaar & van Balen, 2018]. Accordingly, SM users are often extremely cautious about their privacy settings and choose to impose strict restrictions on who has access to their shared information. However, personal information shared on the social network sites will always find its way to unintended audiences [Jeong & Kim, 2017]. Hajli and Lin [2016] report that users' perceived control affects their information-sharing behaviours, directly and indirectly. Privacy concerns may inhibit the use of the social media constructs and therefore delay the brand co-creation process.

Youn [2009] argues that privacy concerns moderate the effect of risk and benefit appraisal on privacy protection behaviours. Therefore risk concerns regarding disclosed personal information can alter the generation of benefits. However, greater perceptions of benefits offered in information exchange can also lead to less concern regarding information privacy. Therefore, privacy concerns for customers depend on the level of benefit they gain from private information disclosure.

The benefit a vendor can receive via SM's support of information sharing is the learning that occurs when analysing consumer comments and reviews. We expect this benefit of co-creation of a brand due to SM constructs and information sharing, which can be attenuated for those consumers with higher information privacy risk concerns. Therefore we hypothesise;

H6: Privacy concerns reduce the positive influence of social commerce constructs on co-creation in branding
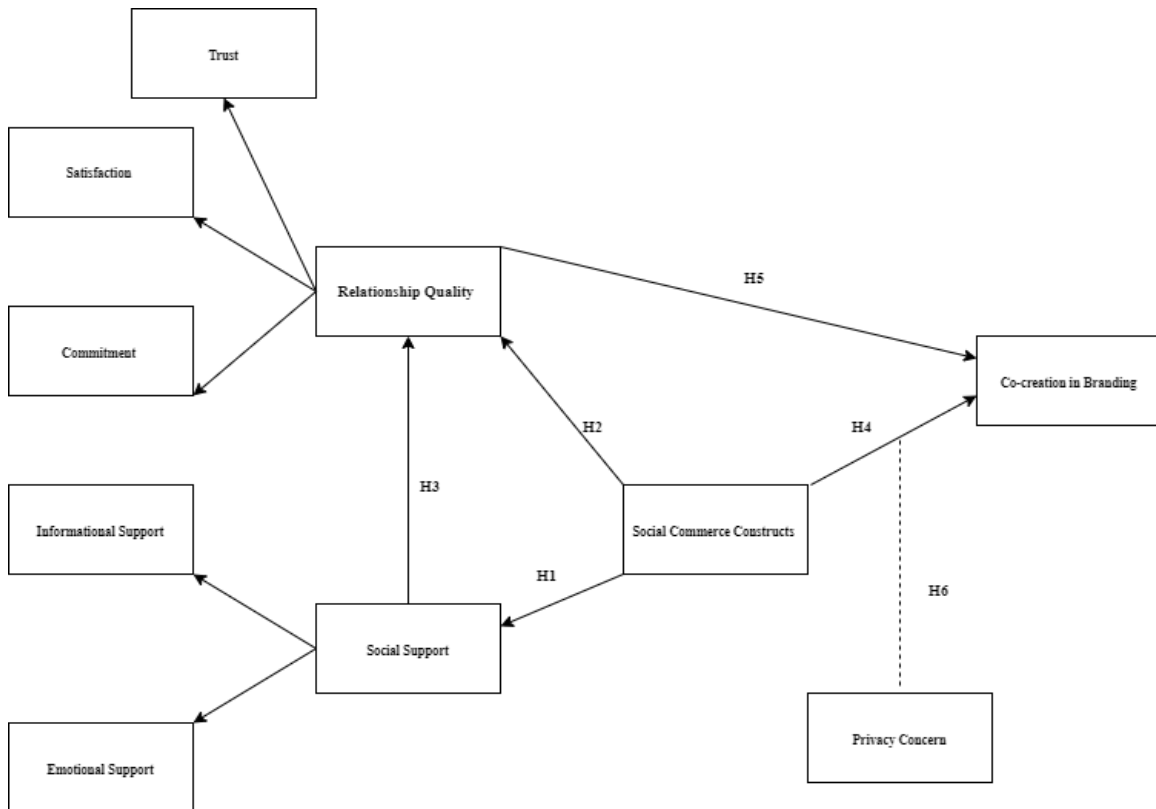

Figure 1: Research model

In this study, based on the literature, we adapt existing models [Bazi et al, 2019; Hajli et al;2017; Tajvidi et al, 2018] with constructs to show how social support and relationship quality work toward brand co-creation and also the moderating effects of privacy concerns on these relations (Figure 1).

3. Methodology
3.1. Data collection
An existing research model was adopted from prior research and refined [Bazi et al, 2019; Hajli et al;2017; Tajvidi et al, 2018]. Therefore the decision was made to include the original contribution of testing the research model in an emerging market; Iran. The survey items were forward and back-translated to/from Persian by several bilingual researchers. To ensure the translation's accuracy, a native English citizen reviewed the differences in meaning between the original and back-translated instruments. This comparison of the two instruments indicated that both reflected the domain [Yoshida et al., 2018]. We then collected data from Iran, a country with the highest number of social media users in the Persian Gulf.

3.2. Research design
To test the research hypotheses, a survey was administered in pre-COVID 2018. All measurement items utilised 5-point Likert scales with the anchors strongly disagree and strongly agree. A sample of adult respondents (N = 400) representing the Tehran population regarding gender, age, educational level, and marital status participated in this study. Following the data collection, we deleted 39 surveys due to incomplete and unreliable answers leaving left 361 valid responses (90% accuracy rate). Before offering the survey instrument to the respondents, they were provided with a brief description of online brand communities. Social media usage is currently widespread among the youth of Iran. Table one below indicates that the sample is predominantly young and well-educated. A complete demographic description of the sample can be found in Table1.

Table.1. Sample Demographics

Measure	Item	Freq.	Percent
Gender	Male	224	62 %
	Female	137	38 %
Age	Below 25	223	61.8 %
	25-35	118	32.7 %
	+36	20	5.5 %
Education	Below Diploma	34	9.4 %
	Associates	21	5.8 %
	Bachelors	163	45.2 %
	Masters	115	31.9 %
	Post-Masters	28	7.8 %
Marriage Status	Single	307	85 %
	Married	54	15 %
Total responses		361	100%

3.3. Measure development
Drawn from prior literature, we proposed a model which includes five constructs: social commerce constructs, social support (which includes two dimensions: emotional support and informational support), and relationship quality (which include three dimensions: trust, commitment, and satisfaction), intention to co-create a brand, and privacy concerns (deployed here as a moderating variable). Items measuring social support and relationship quality were adopted from Hajli and Sims [Hajli, 2014; Hajli & Sims, 2015]. The items measuring intention to co-create in branding were adopted from Tajvidi et al [2017]. The items measuring social commerce constructs were adopted from Hajli [2015], and the concern for information privacy items was adopted from Stewart and Segars [2002].

4. Data Analysis and Findings
Multiple tests were conducted to determine the validity of the survey data. Partial least square structural equation modelling (PLS-SEM) was used to analyse the research model and variables. A two-stage approach using Smart PLS 3.0 was utilised to test the validity and reliability of the research constructs and research model. We examined the measurement model and assessed reliability, convergent validity, and discriminant validity in the first step. We first conducted a reliability analysis to gain Cronbach alpha and confirmatory factor analysis (CFA) to ensure internal consistency between the scale items.

As shown in Table 2, all construct measures show high Cronbach's alpha scores, ranging from 0.69 to 0.88. Using CFA, we calculated the composite reliability (CR) and the average variance extracted (AVE) of each construct measure. Results indicate that each construct CR measure was higher than 0.80 exceeding the acceptable value of 0.70 and each AVE score was higher than 0.5, both acceptable results [Bagozzi & Yi, 1988]. We assessed discriminant validity using Fornell, and Larcker's [1981] recommended procedure. Table 2 shows that the square root of the AVEs was greater than all of the constructs' correlations, indicating sufficient scores which satisfy the discriminant validity of constructs.

Table 2: Descriptive Statistics And Correlations

Constructs	Alpha	CRs	AVEs	1	2	3	4	5	6	7	8	9	10	11
Co-creation in branding	0.781	0.859	0.604	0.77										
Commitment	0.786	0.875	0.700	0.43	0.83									
Emotional support	0.836	0.890	0.670	0.41	0.37	0.81								
Informational support	0.784	0.874	0.698	0.44	0.37	0.71	0.83							
Moderator-privacy concern	1.000	1.000	1.000	0.07	0.01	0.09	0.09	1.00						
Privacy concern	0.790	0.862	0.610	0.19	0.06	0.08	0.09	0.17	0.78					
Satisfaction	0.817	0.891	0.732	0.36	0.62	0.35	0.35	0.10	0.10	0.85				
Trust	0.734	0.849	0.653	0.42	0.62	0.30	0.33	0.05	0.04	0.62	0.80			
relation quality	0.885	0.907	0.521	0.47	0.86	0.39	0.40	0.06	0.08	0.87	0.85	0.72		
social commerce construct	0.698	0.832	0.624	0.64	0.41	0.46	0.47	0.09	0.13	0.44	0.43	0.49	0.79	
social support	0.882	0.908	0.586	0.46	0.40	0.94	0.90	0.10	0.09	0.37	0.34	0.43	0.50	0.76

Note: N = 361; CR: composite reliability; Alpha: Cronbach's alpha; the bold values along the diagonal are the square roots of the AVEs

Finally, in the last step for measuring the research model, we examined the factor loadings of each indicator, which led us to assess convergent validity and discriminant, as Chin [1998] suggests the factor loadings of an indicator should be greater than the construct of it than on any other factor. Sufficient convergent and discriminant validity are shown in Table 3.

Table 3: Square of correlation between latent variables

	Emotional support	Information al support	Commitme nt	Satisfaction	Trust	Social commerce constructs	Co-Creation in branding	Privacy concern
AQ1	0.841	0.529	0.376	0.316	0.328	0.375	0.342	0.027
AQ2	0.847	0.594	0.302	0.334	0.249	0.406	0.318	0.109
AQ3	0.792	0.623	0.281	0.222	0.217	0.378	0.377	0.085
AQ4	0.793	0.594	0.260	0.271	0.218	0.352	0.318	0.056
BQ1	0.573	0.825	0.250	0.246	0.193	0.341	0.362	0.113
BQ2	0.587	0.821	0.311	0.306	0.288	0.394	0.341	0.039
BQ3	0.631	0.860	0.369	0.330	0.341	0.448	0.405	0.095
CQ1	0.301	0.356	0.845	0.439	0.524	0.377	0.408	0.041
CQ2	0.306	0.269	0.842	0.597	0.557	0.303	0.324	0.103
CQ3	0.327	0.314	0.822	0.531	0.478	0.368	0.374	0.022
DQ1	0.263	0.269	0.487	0.835	0.512	0.355	0.331	0.054
DQ2	0.327	0.349	0.544	0.874	0.524	0.398	0.284	0.111
DQ3	0.306	0.286	0.577	0.858	0.571	0.375	0.328	0.090
EQ1	0.288	0.276	0.530	0.554	0.817	0.353	0.326	0.074
EQ2	0.207	0.239	0.450	0.510	0.814	0.335	0.336	0.101
EQ3	0.252	0.283	0.525	0.451	0.792	0.368	0.380	-0.060
FQ1	0.346	0.359	0.307	0.323	0.396	0.721	0.419	0.074
FQ2	0.321	0.350	0.350	0.353	0.309	0.819	0.547	0.142
FQ3	0.431	0.411	0.328	0.365	0.336	0.826	0.556	0.110
GQ1	0.338	0.410	0.328	0.256	0.262	0.508	0.753	0.136
GQ2	0.330	0.326	0.363	0.271	0.307	0.523	0.786	0.139
GQ3	0.339	0.356	0.366	0.304	0.363	0.475	0.813	0.167
GQ4	0.279	0.286	0.306	0.309	0.400	0.500	0.756	0.161
HQ1	0.077	0.060	0.119	0.121	0.103	0.148	0.182	0.821
HQ2	0.131	0.109	0.078	0.084	0.079	0.096	0.132	0.707
HQ3	0.038	0.114	-0.004	0.072	-0.001	0.118	0.171	0.828
HQ4	0.014	0.003	-0.003	0.001	-0.073	0.037	0.094	0.763

Note: AQ= Emotional Support. BQ= Informational Support. CQ= Commitment. DQ= Satisfaction. EQ= Trust.
FQ= Social Commerce Constructs. GQ= Co-Creation in Branding. HQ= Privacy Concerns

4.1. Structural model

For the test of the research hypotheses, the SmartPls 3.0 bootstrapping method was conducted to examine each research model path coefficient's significance. The descriptive statistics of the key constructs are shown in Figure 2. and Table 4. Results indicate that Social Commerce Constructs, positively influence on Social Support (H1 β = 0.506, t value = 10.712) and Relation Quality (H2 β = 0.373, t-value = 7.228) and Brand Co-Creation in (H4 β = 0.532, t-value = 12.010) supporting H1, H2 and H4. Supporting H3, Social Support has a positive effect on Relation Quality (β = 0.246, t-value = 3.796). Supporting H5, Relationship Quality has a positive effects on Branding Co-Creation (β = 0.202, t-value = 4.239). Finally, the role information privacy concerns did not moderate the effect of Social commerce constructs on Co-Creation in Branding (β = -0.001, t-value = 0.037); therefore, H6 was not supported.

Table 4: Hypotheses testing results

| Hypothesis	Relationships	β	*t*-value	Results
H1	Social commerce constructs ⟶ Social support	0.506	10.712	supported
H2	Social commerce constructs ⟶ Relationship Quality	0.373	7.228	supported
H3	Social support ⟶ Relationship Quality	0.246	3.796	supported
H4	Social commerce constructs ⟶ Branding Co-Creation	0.532	12.01	supported
H5	Relationship Quality ⟶ Branding Co-Creation	0.202	4.239	supported
H6	Privacy concerns ⟶ Brand Co-Creation	-0.001	0.037	No-support
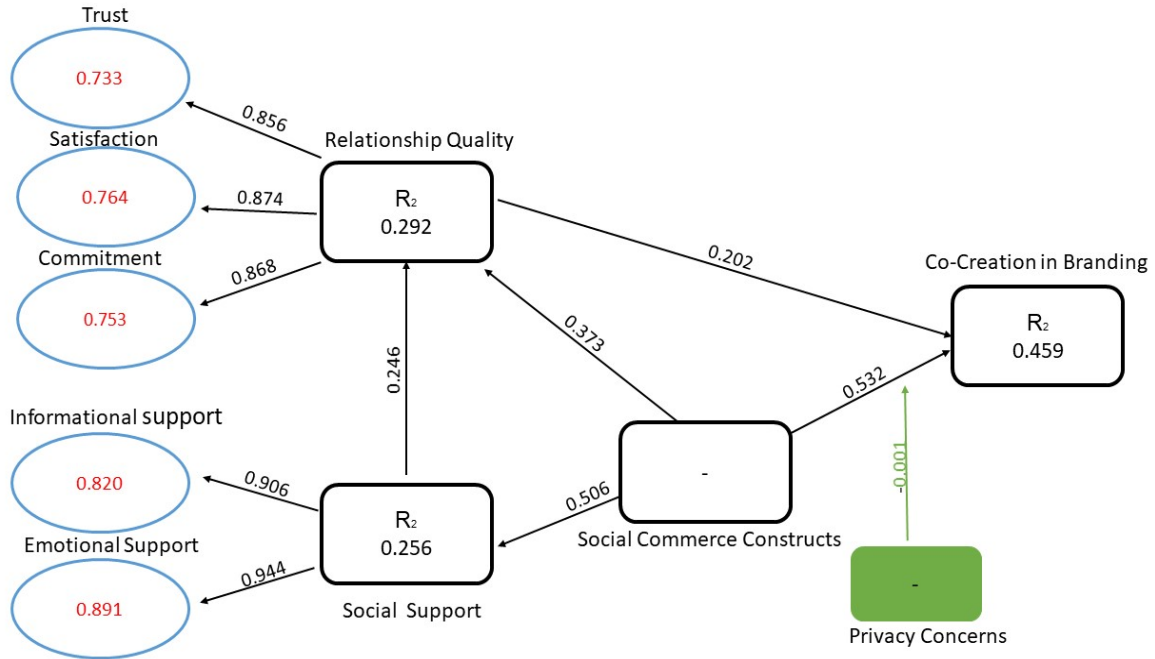
Figure 2: PLS results from the overall model
Notes: Results of path coefficient (t-value). All paths are significant, i.e. t-value>1.96

5. Discussion

The consumer-to-consumer information sharing and pre-purchase research capabilities of social media technologies have transformed e-commerce into social commerce. These developments create firms' opportunities to develop new branding strategies, using inexpensive and ubiquitous social media platforms. This research examined social media's role in value co-creation where consumers provide ideas and feedback that is useful for brand extensions, brand refinements, and to develop new product usages and target markets. In particular, we looked at social commerce constructs, social support, relationship quality and privacy on value co-creation for branding in social commerce platforms.

The results show that social commerce constructs are positively associated with social support. Consumers are coming to rely on the social and informational support provided by SM community members. This can take the example of a consumer getting their product usage questions answered by a more experienced consumer or product expert. Our results support Lackey and Cohen [2000], who suggested that social support can reduce consumer stress.

The interaction amongst members of a social network fosters support and strong network relationships, via information sharing and clarification, often bringing individuals closer to each other and closer to the brands being discussed. This is a notable extension of the current literature on the relevant subject such as Angelini et al. [2017], Al-Kandari et al., [2019], and Tsitsi et al., [2019].

Given the nature of social commerce which brings together the beauty of social interaction and commercial activities associated with the traditional websites [Grange et al, 2018; Tang & Zhang, 2018], it is reasonable to hold that social commerce constructs are positively related to relationship quality as the findings of this study demonstrate. The key elements that underpin relationship marketing, notably trust and commitment [Morgan & Hunt, 1994], are also fundamentally relevant to social commerce. For instance, people interact online to explore reviews and comments of friends, family members, and associates through various social media platforms as underpinned by the trust they have in these individuals. Trust indicates a generalised expectancy held by an individual that another person's word can be relied upon Rotten [1967]. Hence, social commerce activities are expected to strengthen the relationship maintained by members of many types of social networks.

Results reported here demonstrate that social support, which is indicated by the sharing of resources among members of a network to enhance their wellbeing, is positively associated with relationship quality. The key issue of commitment is relevant in this postulation in that sharing of resources cannot be dissociated from the commitment of members of the network in question. We expect that there will be a higher degree of relationship quality due to the

members' commitment, as indicated by the degree of satisfaction and loyalty. Hence, social support and relationship quality are inextricably linked.

Results reported here also suggest that social commerce constructs positively influence brand value co-creation. Value co-creation captures the collaboration between members of a marketing system to foster effective value-creation and value-delivery, especially between the customer and the firms, the brands' sponsors [Merz et al., 2018]. By its nature, social commerce involves the interactions of members of a particular network or system interacting and sharing information. Accordingly, this leads them to be involved in value co-creation with firms. For instance, consumers can learn about new product developments and purchasing options, and brand owners can learn what product upgrades consumers covet. Since businesses also leverage customer-owned resources and motivation for involvement in value co-creation, as argued by Merz and Zantonell [2018], co-creation activities of members of a network with brand contribution sponsor could influence the strength and viability of their social commerce activities.

Confirming prior research [Hajli et al., 2017], this study also reports that relationship quality is positively associated with brand co-creation. Relationship marketing emphasises the importance of the long-term (enduring) relationship between the stakeholders and yields higher satisfaction and brand loyalty. Accordingly, it is sensible to concur that the relationship's quality will be positively related to value co-creation in brands.

Finally, results indicate that consumers with higher privacy concerns still are willing to participate in brand value co-creation activities. We expected privacy concerns to deter people from participating in social commerce interactions; however, the allure of engaging more closely with valued brands (and upload product evaluations and reactions) may be too strong.

6. Theoretical contributions and practical contributions

This study contributes to the e-commerce research domain by integrating e-commerce and marketing theories to develop a strategic tool for firms to measure factors that influence brand co-creation. This study also informs discourse dynamics research by examining the effects of technological developments as conceptualised by the social media constructs [Geurin & Burch, 2017; Hollenbeck & Kaikati, 2012].

From a practical standpoint, this study provides some strategic direction to firms concerning branding. Given the key relevance of social commerce at facilitating social and informational support amongst members of the network, firms could expend resources to foster relationships amongst members of the network to facilitate consumers to support each other. Moreover, this study's significant implication is in the area of relationship quality and how consumers that feel supported, are more likely to share large amounts of information that can be used to further develop brands, and brand meanings. It will be greatly beneficial if firms could allocate resources to relationship management to boost the relationship quality the organisation has with its target customers. This will foster value co-creation, engender satisfaction, loyalty, and ultimately support increased profitability.

7. Conclusion

This research provides a new understanding that social commerce is a technology that can be strategically used to create brand value. Consumers are informing brand managers of their preferences and desired improvements via social media. The results suggest that social commerce constructs, social support, and relationship quality support are closely linked to the brand value co-creation (and therefore, sustainability) process. The more consumers are involved and engaged with a brand, the more information can be captured, and data mined to understand consumer sentiment and evolving needs. The notion of consumer privacy concern is also considered important because having such concern vis-à-vis social commerce may impede participation in brand co-creation activities. Hence, the study provides strategic directions for firms that are attempting to rebrand their products to better match consumer needs as learned from social media communities.

8. Limitation and future research direction

Some limitations of this research may include a focus on the service sector, rather than product focus; however, the notions of value co-creation, social commerce, social support, and relationship quality are also amenable to other business contexts. Hence, it will be very useful if future studies could measure whether this phenomenon is different business contexts and product lines. Complex products require more pre-purchase consumer research; therefore, these contexts are deserved further research to measure the impact of social commerce constructs on brand co-creation. While the current sample is drawn from Iran, future research should examine other countries where social commerce is more ingrained into daily consumption patterns. The suppressing influence of information privacy concerns is also deserved of future research.

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