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MANAGEMENT | RESEARCH ARTICLE

Social co-creation acceptance among females in Saudi Arabia

Maryam Muti Altalhi1*

Abstract: The present study develops a model to investigate how social influence can motivate customers towards their involvement in social co-creation. It also investigates how customers' co-creation factors affect their intention to participate in future co-creation. An empirical study was conducted using an online question-naire. The data was collected from 632 samples and analysed using a Structural Equation Modelling (SEM) approach. The final model estimates that co-creation factors significantly impact the behavioural intention of social co-creation. Social influence has a positive relationship with all the co-creation experiences factors. Subsequently, social influence affects the behavioural intention of social co-creation indirectly through hedonic value and customer learning value. Results revealed that customers' co-creation experiences were affected by social influence, co-creation activities, and demographics (family and financial background), showing their future intention to engage in social co-creation.

Subjects: Science; Technology; Social Sciences; Arts & Humanities; Medicine

Keywords: customers' co-creation experiences; Saudi Arabia; social co-creation; social influence; structural equation modelling

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PUBLIC INTEREST STATEMENT

SM designers, marketers and managers can draw practical implications from this study findings to motivate their customers to engage in social cocreation. A designer should add particular characteristics to achieve the experiences expected by the customers in enhancing the learning value. Challenging tasks should be provided to create immersive environments, and there should be sharing in discussion with the enhancement of unofficial sociability to support the communication of social values. More focus should be put on the significance of social influence, and thus further marketing strategies may be utilized to attract possible customers to the social cocreation. Marketers should harness the effects of social influence and encourage customers to post their participation or to interact more frequently. Moreover, managers are recommended to dedicate more resources and effort of their products on SM to attract customers to participate in social co-creation.







1. Introduction

Social co-creation enables the ability of social media (SM) professionals to embrace customers to use SM and to participate in co-creation activities (Kang, 2014). The purpose of a social co-creation is to include customers from the start of a product's design stage so that customer knowledge and designs can be integrated into those of the companies' producers to form collaboration-based knowledge. Social co-creation differs from social commerce in terms of customer roles. Social co-creation enables customers to take on other roles like innovators, designers, testers, marketers, and support specialists, thus allowing them to become co-creators of a firm (Nambisan & Baron, 2009; Reay & Seddighi, 2012). While social commerce enables customers to only choose and buy products using SM (Kim & Park, 2013).

Social co-creation provides many advantages to the firms. From the perspective of product development, co-creation can reduce investment risk when developing new products (Roser et al., 2014) and help firms meet customer needs (C. X. Zhang et al., 2019). Moreover, co-creation leads to the production of high-quality products at lower costs (Roser et al., 2014). SM enables firms to attract large numbers of customers in terms of a firm's relationship with its customers because it has become a part of millions of people's online activities that enhance their sense of community (Guy et al., 2010). Firms such as Microsoft allow their customers to invite friends to co-operate in their social creation process (H. Zhang et al., 2015).

Particularly, consumers actively seek involvement in each business operation process, as the market behaviour modifies from the initial logic of product-led to service-led. Value co-creation is developed when consumers interact with enterprises in association with the business system. In this regard, the progression of social enterprises cannot merely rely on the single role of entrepreneurs as well as necessitates to encourage resource complementation and cross-sectoral communication. This advancement can ensure the participation of various stakeholders in the value creation process of social enterprises (Ge et al., 2019). The conceptualizations of value co-creation are mutually examined through online customer engagement. Customers are co-creators of value or experience using the service delivery process. The collaborative actions of co-creation between brands and customers generate the value in service-dominant (S-D) logic (T. Zhang et al., 2018).

Donato et al. (2017) have argued that value co-creation offers information to the organization using mechanisms, activities, procedures, interactions, and tasks. Rooted with this process, the interaction exists between people and firms differentiate itself as a culture to classify a network on a platform. Value can be created by customers either acting as co-producers at design, manufacture, delivery, and development, or as value creators at consumption. In this regard, marketers optimize the participation of customers to create value using co-creation activities. Some activities are considered as co-creation activities based on extra-role behaviour and participation (Sutarso et al., 2017).

Consider the success of Starbucks which adopt co-creation by launching MyStarbucksIdea initiative. This initiative has brought more than 200,000 ideas from customers on how to improve the products and services. However, more than 1,000 ideas have been put into action (Lee & Suh, 2013). According to social exchange theory, consumers who made efforts into activity are encouraged by the expected returns. The evidence on customer motivation to co-create value indicates that customers anticipate different advantages in return for co-creation (Jaakkola et al., 2015). It has been claimed that customers expect cognitive benefits, hedonic benefits, personal benefits, and social benefits when co-creating in a virtual environment (Polese et al., 2017). Furthermore, customers also anticipate opportunities for connecting with compatible people, opportunities to introduce new ideas and develop skills, and recognition and self-efficacy. There is a dearth of research on the co-creation experience and the creative experience of women during the development of idea and design in spite of these understood authorizations of the subject's importance (Füller et al., 2011). More evidence is required as the investment of companies in virtual co-creation is significant. They tolerate the risk to evoke minimal interest in participation and involvement, and particularly, not improving the development process via valuable attempts.

Based on the literature covering co-creation acceptance, customer experiences are frequently used to predict user acceptance of co-creation, which refers to the results of customer participation (Kohler et al., 2011). This may include;

- "Hedonic value experience" refers to hedonic benefits that drive customers' participation in cocreation (Kohler et al., 2011; Nambisan & Baron, 2009).
- "Social Integrative Value" refers to social benefits that drive customers' participation in cocreation and the interaction among customers or between firms and its customers that improve over time (Kohler et al., 2011; Nambisan & Baron, 2009).
- "Customer learning experience" refers to the learning benefits that drive customers' participation in co-creation could be the realization of the cognitive benefits that relate to the products and its usage (Kohler et al., 2011; Nambisan & Baron, 2009).

Unfortunately, many studies neglected important factors that shape these experiences. Therefore, the present study has added new knowledge to the existing technology acceptance literature by studying the antecedents of experiences behaviour. This would help in bridging the gap by focusing on the antecedents of customers' co-creation experiences behaviour, which were avoided by previous studies, such as social influence. The current study contributes to the knowledge of factors that affect customers' acceptance to participate in social co-creation. Therefore, this study enriches the body of knowledge in the social co-creation context, and this is very pivotal due to the new wave of social commerce. This study adopts a quantitative methodology and structural equation modelling (SEM) to generalize the findings. Methodologically, this will be one of the first studies to provide an empirical model for female Saudis' use of social co-creation services.

2. Research model and hypothesis development

The research model for the present study was developed around social influence, co-creation experience factors, and technology acceptance factors. Figure 1 shows the research model of this study. Table 1 presents a list of hypotheses for the proposed conceptual model. The related sources are also presented.

3. Research methodology

3.1. Study setting

The causal study design conducted an online survey using the site www.google.com/forms/using a close-ended questionnaire. To increase the response rate of the social media participants, the

Figure 1. Hypothesis Used to Test the Social Co-Creation Model.

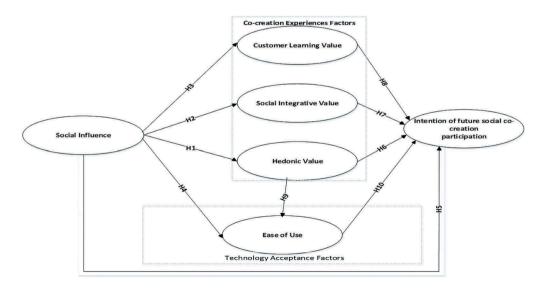




Table 1. The	e list of hypotheses that have been identified for the current research study
	Relationship
H1	Social influence value will have a positive impact on hedonic value
H2	Social influence value will have a positive impact on the social integrative value
H3	Social influence value will have a positive impact on the customer learning value
H4	The social influence will have a positive impact on perceived ease of use
H5	The social influence will have a positive impact on customer intention of future social co-creation participation
H6	The hedonic value will have a positive impact on customers' intention of future social co-creation participation.
H7	The social integrative value will have a positive impact on customers' intention of future social co-creation participation
Н8	Customer learning value will have a positive impact on customers' intention of future social co-creation participation
H9	The hedonic value will have a positive impact on perceived ease of use
H10	Perceived ease of use will have a positive impact on customers' intention of future social co-creation participation

study had shared a survey link on the Instagram accounts of 20 famous women in Saudi Arabia. These accounts were chosen because of their popularity. Potential participants could respond to the online survey by entering the link provided on the message for a period of 2 months.

3.2. Study sample

Determining the appropriate size of a sample is a crucial step to make sure that the collected data was sufficient in terms of quality and validity. The minimum sample size required was 200. This sample size was calculated based on the requirements of structural equation modelling (Hair et al., 2010). Structural equation modelling is a multivariate statistical technique to examine structural relationships. This technique is the combination of multiple regression analysis and factor analysis and used for identifying the structural association between latent constructs and measured variables. A total of 632 respondents was recruited in this study that provides a highly acceptable sample size.

3.3. Measurement development

The questionnaire constructed in this study has adapted 35 questionnaire items from previous literature;

- Scale for social influence items was adapted from Hsu and Lu (2004) and Wang and Chuan-Chuan Lin (2011)
- · Hedonic Value (HV) items were adapted from Yoo et al. (2014) and H. Zhang et al. (2015)
- Customer Learning Value (CLV) and Social Integrative Value (SIV) items were adapted from H. Zhang et al. (2015)
- Perceived Ease of Use (PEOU) items were adapted from Davis (1989)
- Intention Behaviour (IB) items were adapted from Venkatesh et al. (2012) and Wang and Chuan-Chuan Lin (2011)

Five-point Likert type scales were used throughout the study for measuring the variables, with scales ranging from "1 = strongly disagree" to "5 = strongly agree". The questionnaire was translated from English to Arabic to gather accurate data since Arabic is the official language in the Kingdom of Saudi Arabia where the study was conducted. A pilot study was performed with the goal of assessing the validity and reliability of all construct measurements before conducting the main survey. The questionnaire was distributed to 32 academics and business consultants who use social media. The results showed that the items of the questionnaire were



Demographic	Item	Percentage
Age	Under 20	38.4%
	20 to 30	43.4%
	31 to 40	14.5%
	41 to 50	3.3%
	51 or over	0.5%
Total	632	100%
Education	Less than High School	13.13%
	High school	34.02%
	Bachelor's degree	43.51%
	Master's degree	5.1%
	Doctoral degree	1.42%
	Other	2.85%
otal	632	100%
Occupation	Student	59.0%
	Employee-government firm	9.5%
	Employee-private firm	3.5%
	Employed	1.0%
	Unemployed	25.5%
	Others	2.4%

relevant from the academics' and practitioners' perspectives and the questionnaire could be accepted for content validity. Cronbach's alpha was computed to assess the internal consistency of each construct. All the values of Cronbach's alpha exceeded Nunnally's criterion of 0.70. Therefore, the pilot study was considered to be fully acceptable and all 33 items were included in the final questionnaire.

3.4. Data collection

The data collected included information about the demographics. Two demographic variables were used as the acceptance criteria, namely gender and nationality. The data cleaning process was conducted and out of 746 completed questionnaires, 114 had to be discarded as the respondents were either non-Saudis or males. The final usable data came from 632 questionnaires. These data were used to obtain the study objectives. The demographic variables used were age, occupation and education level, as shown in Table 2.

3.5. Data analysis

EFA examines the relations between variables regardless of the theoretical perspectives behind the variables. SPSS version 23 was applied for EFA to extract the factors. EFA was conducted by the application of several tests; communality, eigenvalue, the Kaiser-Meyer-Olkin (KMO) test, and Bartlett's test. As a result of the commonality test, the present study omitted four items with values of less than 0.5. The commonality of all variables was satisfied with values higher than 0.6 after removing these six items. The eigenvalue was tested using principal component analysis (PCA) and the study found that six factors had an eigenvalue that was greater than 1.0. The whole factor loading was over 0.50.

The CFA approach was used to give a confirmatory test of the measurement theory. It uses AMOS 23 for testing the measurement model. The construct reliability should always be greater



than 0.7 that indicates consistency among the constructs (Polese et al., 2017). The analysis comprised three steps as follows:

- · Exploratory Factor Analysis for reliability assessment
- · Confirmatory Factor Analysis Scale Validity
- · Structural Equation Modelling and Hypothesis Testing

4. Results

In the present study, the KMO test shows a value of 0.905, which indicated excellent adequacy. Bartlett's test indicated that the factor analysis was appropriate for this study (significant value p < 0.001). The construct reliability (CR) was greater than 0.7 (Table 2); therefore, construct reliability was acceptable.

Convergent validity means that a certain construct has construct validity for assessing the validity of a measurement model if a high ratio or proportion of variance is shared. The average variance extracted (AVE) should always be greater than 0.5, which is half the number of the variance observed. Table 2 shows that the AVE value of all items was greater than 0.5 showing that it has an acceptable convergent validity. Discriminant validity is the measure by which two similar concepts are distinct. The validity shows that the summated scale differs from that of other, similar concepts. Here, the difference shows that the AVE scores are greater than those of the Maximum Shared Variance (MSV). The AVE value of all items was greater than the MSV and the discriminant validity was acceptable (Table 3).

4.1. Path analysis

Figure 2 shows the assessment of structural model after all the construct measures have been confirmed to be reliable and valid.

The fit of the SEM was satisfactory based on the result of the reliable indicators. Firstly, CFI shows an excellent fit model with the value 0.903, because it was greater than the critical value of CFI > 0.9. Secondly, the value of RMSEA shows an excellent fit model with the value of 0.070, because it was lower than the critical value <0.80. Thirdly, the value of AGFI shows an excellent fit model with the value 0.830, because it was greater than the critical value >0.80. Fourthly, the value of GFI shows an excellent fit model with the value 0.901, because it was greater than the critical value 0.90. Fifthly, the value of TLI shows an excellent fit model with the value 0.902. Sixthly, the value of NFI shows an excellent fit model with the value 0.901, because it was more than the critical value 0.901. Finally, the value of RMR shows an excellent fit model with the value 0.196, because it was more than the critical value.

4.2. Hypothesis testing

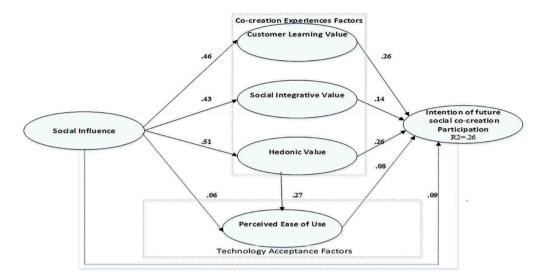
The hypotheses proposed in this study were examined using path analysis. Table 4 shows that the t-values were above the 1.96 and critical values (P-value) were less than the 0.01 significant levels. However, the critical values (t-values) for the remaining three constructs in relation on Social influence and perceived ease of use, Social influence and Intention Behavior, and Perceived ease of use and Intention Behaviour were not found significant. It was observed that 25.5% of the variance among the factors of social influence, customers' learning value, hedonic value, and social integrative value were explained by intentional behaviour to use the social co-creation in the future.

4.3. Significance of the mediation effect (Bootstrap method)

The bootstrap method was conducted as a recommended method to test the significance of the mediation effects of latent variables (MacKinnon, 2012). This method was employed as recommended by (Cheung & Lau, 2008; Mallinckrodt et al., 2006) as it offers greater statistical confidence interval's precision and power. The detailed steps of conducting bootstrapping statistical technique were

Table 3. Meas	surement mode	Table 3. Measurement model reliability and validi	d validity							
	CR	AVE	MSV	MaxR(H)	PEOU	ΛS	IB	ΛН	SIF	CLV
	2.0<	>0.5								
PEOU	.925	0.674	0.316	0.936	0.821					
SV	068°	0.620	0.294	096.0	0.203	0.787				
IB	0.910	0.719	0.217	0.974	0.158	0.405	0.848			
АН	0.873	0.633	0.331	0.978	0.301	0.530	995.0	962'0		
SIF	0.805	0.580	0.169	0.980	0.121	0.337	0.317	0.411	0.762	
CLV	0.850	0.500	0.331	0.982	0.562	0.542	0,440	0.575	0.356	0.672

Figure 2. Result of Hypothesis Testing from SEM.



offered by Mallinckrodt et al. (2006) and Cheung and Lau (2008) were followed to fulfil the mediation test with AMOS version (22). In line with this recommendation, 1,000 bootstrap samples and 95% confidence intervals were followed as least procedure to be followed.

The last statistical technique remaining was testing the significance of mediation paths between social influence (SI) and behavioural intention (BI) through four mediator constructs, namely customer learning value (CLV), social value (SV), hedonic value HV and perceived ease of use PEOU (in line with hypotheses of the study H_{11a} , H_{11b} , $H_{11\ c}$ and H_{12}), respectively. The results of the bootstrapping procedure are presented in Table 5. The results indicated no mediation effect between social influence SI and behavioural intention IB through perceived ease of use PEOU (P-value = 0.073), which was greater than the recommended level. Therefore, it can be said that hypothesis H_{12} was rejected as it could be expected since hypothesis H_{10} concerning the direct influence of PEOU on IB was rejected earlier. The other three mediating paths coefficients through customer learning value (CLV), social value (SV), and hedonic value (HV) were all found to be a statistically significant threshold of than (0.01), with results (P-Value = 0.001, 0.003 and 0.001), respectively. Accordingly, there is a mediation between SI and IB through customer learning value (CLV), social value (SV), and hedonic value HV (hypothesis H_{11a} , H_{11b} , and $H_{11\ c}$).

The second step for testing the mediation effect is an important aspect of the mediation, which is computed as a product of the β coefficients of the paths constituting the mediation path (Table 5). In this regard, the recommended level for practical importance was a threshold of 0.08. Table 5 shows that the path for two hypotheses, specifically, from SI to IB through CLV and from SI to IB through HV surpassed the recommended level (Threshold of 0.08) of practical importance.

There was no difference in technical procedures for cases where mediation or suppression was operating; although, there were indirect relationships (the mediation effect) between the exogenous variable, namely SI and the indigenous variable. The IB was marked by the suppression effect operating in this case; however, there was a difference in interpreting the results (Cheung & Lau, 2008). Specifically, in case of suppression, the direct path sign switch should not be interpreted contrary to the hypothesized relationship in place, even if this direct path was statistically significant as shown in the present study between SI and IB (Shrout & Bolger, 2002). The results of the present study have concluded that SI indirectly positively affects IB only through CLV and HV constructs. The result of the hypotheses test is present in

Table 4. The rest	Table 4. The result of hypotheses test				
NO.	Description	Standardized regression weight	The critical ratios t-value	p-value	Empirical support
		Above.5	>1.96	<0.05	
H1	Social influence value is positively related to Hedonic value.	.515	10.476	0.001	Supported
Н2	Social influence value is positively related to social integrative value.	.455	9.140	0.002	Supported
H3	Social influence value is positively related to customers' learning value.	9/4.	8.575	0.020	Supported
7 H	Social influence is positively related to perceived ease of use.	.067	1.233	.218	Not Supported
H5	Social influence is positively related to customers' intention to engage in social co-creation.	.085	1.320	.187	Not Supported
9Н	Hedonic value is positively related to customers' intention to engage in social co-creation.	.258	5.011	0.012	Supported
Н7	Social integrative value is positively related to acceptance to customers' intention to engage in social cocreation	.152	3.299	0.002	Supported
8H	The customer learning value is positively related to customers' intention to engage in social cocreation.	.240	4.762	0.032	Supported
6Н	Hedonic value is positively related to perceived ease of use.	.270	5.104	0.067	Supported
H10	Perceived ease of use is positively related to customers' intention to engage in social co-creation.	081	-2.004	.045	Not Supported

Table 5. Bootstr	Table 5. Bootstrap Results: Standardized Indirect		Effect and Effect Size for Mediation	e for Mediation				
	Path/effect	(080'<)	SE	95% Confide	95% Confidence interval	p-value	Decision-based	Practical
				Lower	Upper	(<.01)	on the test of significance (<0.01)	importance based on the effect size (>0.08)
H 11a	SI CLV SLV IB	880.	.025	.050	.134	.001	Significant	Important
H 11b	SI SV SVIB	.056	.021	.025	.095	.003	Significant	Not important
Н 11 с	SI HV HVIB	.109	.027	.071	.159	.001	Significant	Important
Н 12	SI PEOU IB	600`-	.007	024	001	.073	Insignificant	Not important



Hypotheses	Description	Result
H1	Social influence value has a significant positive effect on hedonic value	Supported
H2	Social influence value has a significant positive effect on the social integrative value	Supported
H3	Social influence value has a significant positive effect on the customer learning value	Supported
H4	Social influence has a significant positive effect on perceived ease of use	Not supported
H5	Social influence has a significant positive effect on behavioural intention of social co-creation	Not supported
H6	Hedonic value has a significant positive effect on behavioural intention of social co-creation	Supported
H7	Social integrative value has a significant positive effect on behavioural intention of social co-creation	Supported
Н8	The customer learning value has a significant positive effect on behavioural intention of social co-creation	Supported
H9	Hedonic value has a significant positive effect on perceived ease of use	Supported
H10	Perceived ease of use has a significant positive effect on behavioural intention of social co-creation	Not supported
H11a	The effect of social influence on behavioural intention of social co- creation is mediated by the customer learning value	Supported
H11b	The effect of social influence on behavioural intention of social co- creation is mediated by the Social integrative value	Not supported
Н11 с	The effect of social influence on behavioural intention of social co- creation is mediated by the hedonic value	Supported
H 12	The effect of social influence on behavioural intention of social co- creation is mediated by the perceived ease of use	Not supported

Table 6, with 10 direct hypotheses and four mediating hypotheses. The SEM analysis indicates that seven hypotheses were supported and three of them (H_4 , H_5 and H_{10}) were not supported among the 10 hypotheses. In the mediating analysis, the results of the analysis revealed that two mediating hypotheses (H_{11a} and H_{11c}) were supported, while two of them (H_{11b} and H_{12}) were not supported among four mediating hypotheses.

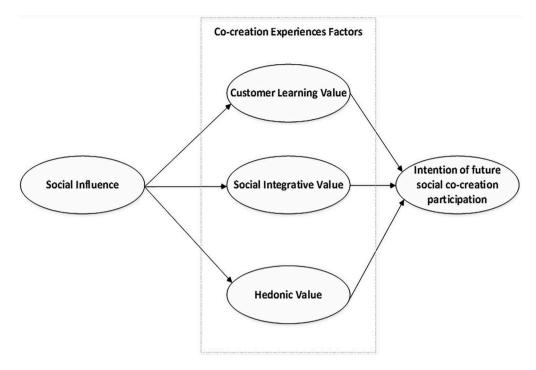
The final social co-creation model has been presented in Figure 3. The co-creation experience factors significantly impact the behavioural intention of social co-creation. These factors include hedonic value, social integrative value, and customer learning value. Social influence has a positive relationship with all the co-creation experiences factors. Subsequently, social influence affects the behavioural intention of social co-creation indirectly through hedonic value and customer learning value.

5. Discussion

The main findings of this study included the determination of the significant and non-significant factors that prompt customers to accept social co-creation. Hypothesis 1 examined the impact of social influence on hedonic value (β = .509, t-value = 10.269, p-value <0.001). Hypothesis 2 examined the impact of social influence on social integrative value, which was also supported (β = .426, t-value = 9.184, p-value<0.001). This result was also in line with the findings of the previous study (Yoo et al., 2014).

Hypothesis 3 examined a significant impact of social influence on customer learning value (β = .464, t-value = 7.971, p-value<0.001). This implies that customers were strongly affected by the opinions of customers regarding their perceptions of gaining experiences from their engagement in a social cocreation process. These experiences would include their hedonic, social integrative, and learning experiences. The empirical analysis confirms that a positive social influence enhances customers'

Figure 3. The final model of social co-creation acceptance.



perceptions regarding potential experiences. This indicates that the value co-creation behaviour between social enterprises and customers can effectively promote the growth of enterprises and enhance enterprise performance. Customers can effectively enhance the market performance and overall efficiency of enterprises by participating in the enterprise's operation using value co-creation (Ying et al., 2017).

Hypothesis 4 examined the impact of social influence on perceived ease of use of social cocreation, which was also (β = .063, t-value = 1.164, p-value = .244). This finding was in line with Lewis et al. (2003), however, it was contrary to the finding of Lu et al. (2005) This implies that customers' perceptions of ease of use were not affected by the opinions of significant others when they feel that social co-creation was easy to use. In the value creation process, customer engagement effectively enhances the resource integration of social enterprises and the competence to solve social issues. Considering the resource-based view, the difference in resources shows the competitive advantage of a company. The success of entrepreneurship was essentially ensured from the acquisition and integration of resources (Haugh & Talwar, 2016).

Hypothesis 5 examined the impact of social influence on customers' intention to engage in social co-creation. This hypothesis was not supported (β = .092, t-value = 1.482, p-value = .138). In the context of Saudis, this finding was in line with Alkhunaizan and Love (2012) and Khalifa and Ning Shen (2008). However, this finding contrasts with other studies conducted in a mandated environment in Saudi Arabia such as e-learning (Al-Gahtani, 2016), the stock exchange system by mobile (Tadawul) (Alotaibi, 2013), and desktop computer applications (Al-Gahtani et al., 2007). Consumers and enterprises create value using the interaction of the resources of both stakeholders, in the process of value co-creation, specifically associated with the operational resources. Enterprises obtain external resources and develop competitive advantages based on the information and knowledge of customers. Value co-creation can be considered as the network patching behaviour of enterprises for obtaining and utilizing resources through social networks, which was used for achieving sustainable development, and enhancing the overall viability of enterprises (Cossío-Silva et al., 2016). This suggests that customers' intention to engage in social co-creation was not directly affected by the opinion of their significant others.



The social influence does not affect behaviour intention directly because of the voluntary nature of the social co-creation Venkatesh et al. (2003), argued that the social influence construct was insignificant in a voluntary environment but was significant in a mandated environment. However, the empirical results from this study found that the social influence constructs affected behavioural intention, indirectly. Hypothesis 6 examined the impact of hedonic value on customers' intention to engage in social co-creation services (β = .260, t-value = 5.184, p-value<0.001). Hypothesis 7 examined the impact of social integrative value on customers' intention to engage in social co-creation services (β = .139, t-value = 3.177, p-value<0.001). At the same time, the positive effect of value co-creation was shown on the growth of social enterprises under the condition of low environment dynamics, whereas it was greatly weakened under the condition of high environment dynamics (Järvi et al., 2018).

Hypothesis 8 examined a significant impact of customers' learning value on their intention to engage in social co-creation services (β = .246, t-value = 5.005, p-value<0.001). These findings were consistent with those of other co-creation studies (Gebauer et al., 2013; Roberts et al., 2014; H. Zhang et al., 2015). Customers learning value shows positively engagement behaviours such that they feel valued, experience reciprocity, were delighted and likely to co-create value. Another important association of customers' learning value was with their behaviours and manner such as responsiveness, politeness, and empathy. It was expected by customers to maintain a robust technology environment and consider the responsibility of the providers for resolving system-related problems, once occurred (Järvi et al., 2018). This result implies that customers will engage in a social co-creation if they expect to obtain benefits from the experiences, such as hedonic and social integrative values and customer learning. Hedonic and customer learning values play a more significant role in predicting the acceptance of social co-creation than social integrative value. This finding suggests that social co-creation services can get a competitive advantage if it induces positive experiences in its customers.

Hypothesis 9 examined a significant impact of hedonic value on perceived ease of use (β = .272, t-value = 5.170, p-value<0.001). This result was in line with the findings of the previous study (Agarwal and Karahanna, 2000). Users feel that social co-creation services have playfulness merit, which allows users to perceive an easy system to use rather than a complex system.

Hypothesis 10 examined a significant impact of perceived ease of use on customers' intention to participate in social co-creation. This hypothesis proved negatively and the findings did not support the hypothesis (β = .083, t-value = 2.073, p-value = 0.038). This finding was in line with studies in the SM context (Braun, 2013; Park, 2009), but it conflicts with other studies on wireless Internet services via mobile technology (Lu et al., 2005) and on online auction users (Turel et al., 2011).

This suggests that customers do not make a decision to engage in the social co-creation process based on how easy it was to use the system. The potential reason behind this finding was that the continuous use of technology minimizes the significance of ease of use (Turel et al., 2011). This particular finding applies to IT-proficient individuals such as those who use the SM on a daily basis. Therefore, this relationship was insignificant in the SM context for the likely reason that SM users do not have any difficulty in using SM. In contrast, this relationship could be significant among those persons unfamiliar with the technology or when new technology was introduced (Lu et al., 2005; Turel et al., 2011).

Previous studies in the context of new technology acceptance developed theoretical models based on information systems, sociology, and psychology (Venkatesh et al., 2003). The main finding of this study demonstrated that social influence positively affects on behavioural intention in the social co-creation as voluntary environment but this happens only indirectly; despite the fact that social influence does not affect intention behaviour in a voluntary environment (Venkatesh et al., 2003).

From the social commerce literature perspective, the greatest focus has been on SM behaviour in relation to social health (Hanson et al., 2011), social learning (Park, 2009), and social commerce (Abed



et al., 2015; Makki & Chang, 2015). Very few studies have focused on social co-creation acceptance (Donato et al., 2017), despite the fact that SM provides firms with opportunities to establish new business models around social co-creation. Few studies in the literature discuss the particular role of females in SM (AlGhamdi & Reilly, 2013). There are few quantitative studies available on the subject of females' involvement in SM in the context of Saudi Arabia (Al-Saggaf, 2011).

5.1. Theoretical and managerial implications

From the perspective of the co-creation literature, few studies have focused on the factors shaping these experiences, especially where studies were concerned with the features of platforms, such as customers' interaction characteristics (Nambisan & Baron, 2009) and SM characteristics (perceived task-relevance and affection-relevant cues) (H. Zhang et al., 2015). However, the majority of the co-creation studies have found that customer co-creation experiences were important factors in determining future co-creation behaviour. This study makes a unique contribution by focusing on the antecedents of customers' co-creation experiences behaviour (e.g., social influence) as these have not been studied before. Based on the empirical results, the social influence constructs significantly impact customers' co-creation experiences. Previous co-creation studies were all conducted in western culture, while the current study was conducted in Arab culture. Arabian and western customers participate in the co-creation process to obtain the same type of experience, despite the differences between the two cultures. Therefore, it was safely contended that culture was not a significant factor in the co-creation process. This study makes a unique contribution to generalizing its results to different cultural contexts.

SM designers, marketers, and managers can draw practical implications from this study's findings to motivate their customers to engage in social co-creation. A designer should add particular characteristics to achieve the experiences expected by the customers in enhancing the learning value. Challenging tasks should be provided to create immersive environments, and there should be sharing in discussion with the enhancement of unofficial sociability to support the communication of social values (Kohler et al., 2011).

From the managers' perspective, the model clarifies how managers can test the efficacy of their business strategy in managing the social co-creation by focusing on the customers' motivation to engage intrinsically. The study findings have revealed that managers should focus on the social influence factor. More attentions have to be made to ensure that community awareness of the importance of social co-creation reduces efforts and costs while meeting the customers' needs. Moreover, managers were recommended to dedicate more resources and effort of their products on SM to attract customers to participate in social co-creation. From the marketers' perspective, the study findings proposed that more focus should be put on the significance of social influence, and thus further marketing strategies may be utilized to attract possible customers to the social co-creation. Marketers should harness the effects of social influence and encourage customers to post their participation or to interact more frequently.

6. Conclusion

The study makes an important contribution to Technology Acceptance literature by examining the relevance of Technology Acceptance factors on a new technological platform. Technology Acceptance factors can also be applied in a voluntary context as social co-creation. Another significant theoretical contribution was the integration of perceived ease of use, social influence, and Customer Experience theories into the research model. These had not been integrated previously to predict user intention behaviour. The findings of this study indicated that the ease of use construct was insignificant when IT-proficient individuals use the SM; for instance, the users who use SM daily. The most significant contribution of this study was the identification of additional key variables to be examined when considering user acceptance SM related business strategies.



7. Limitations

Though the current study has significant findings, it has some limitations. Firstly, it was not possible to generalize the findings of this study to other cultures because it was a single study with its sample entirely drawn from Saudi Arabia. Therefore, further studies were needed to examine cultural variations in the antecedents to acceptance or engagement in social co-creation. Secondly, the present study focused on customers' involvement in the designing of clothes, and it was conducted in the context of Instagram. Thus, a generalization of these results to other studies should be made with caution. Future research should test various products and SM applications so that the findings acquired can be confirmed across various products and SM application. Moreover, the study has used a quantitative method to validate the relationship between the constructs extracted from a literature review. Further studies should be conducted through qualitative analysis to provide a thorough understanding and to create new theories. Finally, this study adopted the intention behaviour factor, which was designed to examine acceptable behaviour and applied it to social co-creation. Future studies should measure the actual usage to fully examine and validate the technology acceptance framework. Therefore, it would be significant to include actual usage in a model when investigating how continuous intentions were associated with actual usage.

8. Future suggestions

Future studies can explore demographic and psychographic attributes of customers for answering the question, "Who co-creates?" In addition, the particular motivations of customers involved in co-creation can be ensured through empirical research to answer the question, "Why co-create?". Organizations can be benchmarked by researchers identified for their co-creation efforts and realize best practise for the mutual creation of value to answer the question, "How to co-create?". Customer-to-customer engagements can be examined with respect to their effect on co-creation to answer the question, "How do customers co-create with one another? This interaction was most possibly achieved when the organization was intended to involve in the types of synergies that improve co-creation.

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