Factors Influence Online Customers' Purchase Intention on Luxury Fashion through Customer Engagement

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Abstract
Nowadays, e-commerce and social media communication are primary marketing tools to enhance customer shopping experience, especially in the luxury fashion industry. This article aims to study the direct and indirect relationship between the determinants (Product Information, Interaction, Social Media Communication in terms of User Generated Content and Firm Created Content) and online customers' purchase intention towards luxury fashion through customer engagement. Data from 167 samples are collected and analyzed via an online survey using the partial least square methodology. The findings showed that product information and firm-created content have a significant relationship with customer engagement, and customer engagement showed a substantial relationship with online customers' purchase intention. In contrast, interaction and user-generated content have insignificant effects on customer engagement. It is also proposed that customer engagement significantly mediates the effects of product information and user-generated content on online customers' purchase intention of luxury fashion. The findings have significant implications for the luxury fashion industry's provision of efficient and effective digital marketing based on the needs of online customers.
Keywords: User Generated Content, Firm Created Content, Customer Engagement, Online Customers' Purchase Intention of Luxury Fashion, Malaysia

Introduction
Generally, e-commerce is essential for the growth of the luxury fashion industry; Euromonitor International reports that luxury fashion sales are growing faster at 14% through online platforms while only 5% in physical retail stores (Khatib, 2019). Nowadays, luxury fashion is one of the fastest growing categories of the luxury sector by applying an omnichannel strategy because digital marketing and e-commerce have reshaped customer buying processes and

experiences (Deloitte, 2019). Luxury fashion is characterized by a distinct brand identity of exclusivity, uniqueness, and strictly controlled market positioning based on the niche market segments of high-income consumers (Mamat et al., 2016; Deloitte, 2018; Pentina et al., 2018). Luxury fashion brands are defined as fashion ranges above fast fashion and mass-market brands, which cover the self-fulfillment desire and beyond physiological needs (Jestratijevic et al., 2020). Online marketing has been proven to affect online consumer buying behavior, as the luxury market today is more about emotions associated with it, such as customer engagement, rather than simply product superiority (Lindsey-Mullikin, 2017). Digitally engaging new consumers will bring opportunities to build brand awareness, trust, and loyalty (Schultz & Jain, 2019).

Furthermore, social media communication is vital for consumer decision-making through customer engagement (Hughes et al., 2016; Baker et al., 2018). However, the late adoption of social media communication by luxury fashion brands for customer engagement due to uncontrolled content generated by users became the firm's challenge to maintain brand integrity and brand image (Martín-Consuegra, 2019). Therefore, the effectiveness of digital marketing functionality towards online customers' purchase intention on luxury fashion remains unclear.

Besides, it is observed that limited studies focused on the digital consumption of luxury fashion in Malaysia. A few studies investigated social media marketing and consumer behavior in luxury fashion in other countries (Godey et al., 2016; Romo et al., 2017). Previous studies focused on measuring purchase intention as a performance indicator of the effectiveness of online activities and functionalities but did not highlight the role of customer engagement (Lemon & Verhoef, 2016). Moreover, for online customers' purchase intention, previous studies did not focus on a particular group of social media users such as Instagram (D'Alessandro & Johnson, 2016; Yan et al., 2017; Schultz & Jain, 2019).

To address the issues, this study focuses on factors influencing online customers' purchase intention on luxury fashion regarding product information, interaction, user-generated content, and firm-created content through customer engagement, mainly focusing on Instagram adult users who love luxury fashion. The reason is that lately Instagram platform has reported rapid growth and becoming popular among social media influencers (Perrin & Anderson, 2019) although Facebook has the largest market share but Instagram is characterized by images rather than by text which is an essential element of customer engagement for luxury fashion firms because it featured better the product attractiveness and details by using photos (Wang & Lee, 2020). Prior research also found that Instagram users are more likely to follow luxury fashion and show higher brand community engagement than users of Facebook, Snapchat, and Twitter (Rovai, 2018).

This research has three main objectives. First, assess whether customer engagement is affected by product information, interaction, user-generated content, and firm-created content. The second objective is to show whether online customers' purchase intention is affected by customer engagement. Third, to identify the impact of factors such as product information, interaction, user-generated content, and firm-created content on online consumers' purchase intentions through customer engagement as a potential mediator. To establish the research hypotheses, the first sections of this article include the theory and

literature review, methodology, hypothesis testing, and discussion. This paper's findings could help to understand the effects of factors that lead to the success of luxury fashion e-commerce. Lastly, the study's implications and limitations are provided.

Literature Review and Hypotheses Development
Stimulus-Organism-Responses (S-O-R) Model
S-O-R model first adopted in the 1970s to explain consumer behavior (Mehrabian & Russell, 1974). However, lately, numerous studies have explored the various effects of technological environment cues using this framework. The S-O-R framework has three components: stimulus, organism, and response. The stimulus component refers to the influence that triggered the individual. The organism is a second component that refers to the customers' affective and cognitive condition between both stimuli and responses to the customers. The last component is a response, which refers to the consequences of the customers in the form of customers' behavior towards the brand (Mehrabian & Russell, 1974; Jacoby, 2002). Researchers widely adopted the S-O-R model to explain online retailing settings. They found that the model helps understand the relationships among website characteristics, emotional responses, and consumer buying behaviors (Jha, 2019). In this study, the Stimulus-Organism-Response (S-O-R) framework proposes the importance of external stimuli towards online customers' purchase intention as it is not entirely a rational process where stimulus (product information, interaction, user-generated content, and firm-created content) initiate changes in the organism (customer engagement), which in turn triggers a response (online customers' purchase intention on luxury fashion). The degree of customer engagement with luxury fashion brands is the changes in organisms that significantly influence their intention to buy luxury fashion (Smith et al., 2018).

Online Customers' Purchase Intention
Online customers' purchase intention is when a customer is willing and intends to become involved in online transactions, including information retrieval, information transfer, and product purchase (Dabbous & Barakat, 2020). To a considerable extent, the study of online consumer behavior is similar to offline or traditional consumer behavior (Alavi, 2016). However, online customers interact with technology, typically an information system, to purchase goods and services, requiring more trust (Ariffin et al., 2018). Today, technologies have made online marketing an essential tool for luxury fashion brands to communicate with their audiences, and digital functionality positively affects online brands' strategies, helping in consumer engagement and purchase motivations (Romo et al., 2017). According to McKinsey & Co. (2015), studies revealed that 75% of luxury purchases made in physical stores were influenced by what consumers saw and heard online.
Empirical research has shown that reducing the delay between evaluation and purchase makes consumers less likely to exit the decision process. According to Kumar et al. (2016), the digital functionality of e-commerce showed a positive relationship with online consumers' purchase decisions on luxury fashion; for example, instantaneous feedback from electronic customer services and online communities at the point of purchase increases the conversion rate from favorable evaluation to purchase because consumers tend to bypass the evaluation stage and buy products on impulse (Rovai, 2018).

Product Information

Product information refers to the amount, accuracy, and form of product information, including all verbal or pictorial site descriptors (Kim et al., 2015). In the context of online luxury goods retailing, product information is one of the crucial factors that affect service quality (Kim, 2019), while social media communication, such as user-generated content and firm-created content, only supports the publicity and accessibility to product information (Pantano et al., 2018). In addition, product information through the new technologies without the direct assistance of an employee gives information about the material, product availability, and prices of collections (Chen & Wu, 2015; Xu et al., 2015; Baker et al., 2018). In the era of information technology, vivid and rich product information about product features and consumption is proven to help consumers generate imagination throughout the consumer buying process, which can compensate for the missing sensory experience and physical product experience (Pentina et al., 2018).

If luxury fashion firms do not provide sufficient product information, it can greatly affect customer engagement, which could encourage customers to develop unfavorable perceptions (Baker et al., 2018). Product information positively enhances customer engagement because customers understand luxury fashion brands' procedures to prevent misinterpretation or hidden information in services (Chou & Sawang, 2015).

Hypothesis 1 (H1): *There is a positive and significant relationship between product information and customer engagement in luxury fashion*

Interaction

Interaction refers to the virtual interaction between online service agents of luxury fashion and customers (Chung et al., 2020). However, customers can access product information online without the direct assistance of sales agents, which still impacts some of the specific duties. Indeed, online agents are needed to support system functions and help consumers manage uncertainties such as system failures (Pantano et al., 2018). The automated messages, newsletters, and attractive early bird packages will be sent when triggered by customer inquiry or before the customer requests it, and this has significantly increased customer engagement levels and enhanced the perception of high service quality (Bradlow et al., 2017).

Previous research showed that consumers who have higher virtual interaction are more likely to create positive engagement with the brand because interaction can enhance product and service presentation by involving sensory perceptions of motion and voices through user interfaces (Romo et al., 2017; Perrault, 2018; Martín-Consuegra, 2019). High customer engagement is significantly achieved through interaction, according to Van Doorn et al. (2017) and Mu et al. (2020), because technology has reduced human error but enhanced the roles of employees (Larivière et al., 2017). Timely interaction positively increases customer engagement throughout customer buying processes and after-sales services, which is essential for the competitive pricing industry (Järvinen & Taiminen, 2016). Online service agents can essentially influence decision-making processes by reducing the physical and temporal distance from fashion brands where customers have easy access to product information (Gautam & Sharma, 2017; Chung et al., 2020)

Hypothesis 2 (H2): *There is a positive and significant relationship between interaction and customer engagement in luxury fashion*

User Generated Content

User-generated content refers to any product content, including text, videos, images, and reviews created by people rather than brands (Morra et al., 2018). With the advancement of communication technologies, traditional word-of-mouth communication has been extended to online discussion forums, newsgroups, blogs, and social networking sites, especially Facebook and Instagram, through engaging consumers actively in social media community groups (Smith et al., 2016; Schultz & Jain, 2019). Now, everyone can share opinions and experiences which is relevant to the products and services with anyone who is socially and geographically dispersed; therefore, user-generated content impact significantly on customer engagement, as previous studies showed that most customers seek user-generated content to validate product quality (Godey et al., 2016; Pentina et al., 2018). Customers engaged in user-generated content can reduce the number of brands they consider before purchasing (Lindsey-Mullikin & Borin, 2017; Gautam & Sharma, 2017; Liu et al., 2019). In addition, user-generated content about luxury fashion builds strong customer engagement for long-lasting success through the sense of community-belonging instilled in customers (Choi et a., 2016). This is the key to engaging customers through online platforms, especially when using public influencers to help customers visualize the product's effectiveness (Romo et al., 2017; Quach & Thaichon, 2017).

Hypothesis 3 (H3): *There is a positive and significant relationship between user-generated content and customer engagement in luxury fashion*

Firm Created Content

Firm-created content refers to content created by marketers on official brand pages on social media channels (Morra et al., 2018). Luxury fashion brands increasingly embrace firm-created content to customers worldwide because it encourages consumer and user connection, creates brand awareness, and stimulates customer engagement (Ramadan et al., 2018). Over the last decade, luxury fashion brands have increasingly adopted social media marketing because previous studies showed that it has significant potential in brand propagation, customer engagement and influence consumers by integrating strategic plans that enhance the customer experiences (Pentina et al., 2018; Koivisto & Mattila, 2018; Kim & Phua, 2020). According to Baker et al. (2018), the firm created content positively engaged customers in two-way social media communication, especially in the luxury fashion industry, to benefit from high levels of customer engagement but may be less appropriate for the other luxury sectors because they do not match the experiential requirements for online customers seeking such products, for example, luxury cars (Godey et al., 2016). Research studies showed that clothing and apparel required socially rich communication and observed an increasing trend of using firm-created content (Lindsey-Mullikin, 2017).

Hypothesis 4 (H4): *There is a positive and significant relationship between firm-created content and customer engagement in luxury fashion*

Customer engagement

Customer engagement refers to the favorable psychological state as an antecedent of customers' purchase intention (Dabbous & Barakat, 2020). According to Dessart et al. (2015) and Schivinski et al. (2016), customer engagement can be grouped based on the level of customer activeness: consumption (least active), contribution (moderately active), and creation (most active). Generally, passive consumption represents a minimum level of engagement, such as reading product information, watching luxury fashion brand posts, and

simply following brands on social media. Liking, sharing, and commenting on brand posts are medium-level customer engagement. Some customers go beyond receiving information but have the most substantial customer engagement by creating posts, reviews, or articles related to the brand (Schivinski et al., 2016).

A digital revolution has been shaping the marketing world, making it highly dependent on digital functionalities and platforms to engage customers (Hughes et al., 2016; Ramadan, 2017). This study helps better understand digital motivations (product information, interaction, user-generated content, and firm-created content) toward customer buying intention in luxury fashion. It gives insight into customer engagement as the role of mediator. According to Pentina et al. (2018) and Martín-Consuegra et al. (2019), high-quality product information serves as a motivation to maximize online customer engagement, and this can shorten the customer buying process (Batra & Keller, 2016). Socially rich presentations help entertain and educate customers and simultaneously significantly influence online customers' purchase intention indirectly through customer engagement (Dehghani et al., 2016; Gao & Feng, 2016).

Product information is becoming significant due to criticism of native advertising, which lacks visibility and is blended with commercial messages, which may not be helpful in engaging customers (Carlson et al., 2018). A previous study showed that Malaysian consumers require substantial knowledge about the product information of luxury brands before they make online purchases (Mamat et al., 2016). Females explore product information on luxury fashion more extensively than males, using different mobile applications (i.e., fashion websites and online fashion magazines) to gather product information before purchasing (Schultz & Jain, 2019).

The sense of touch is essential in the customer decision-making process (Godey et al., 2016; Ko et al., 2016), but it is challenging to transform within the virtual environment. However, Beuckels and Hudders (2016) argued that it is possible to psychologically create a sense of touch through the integration of interaction. Real-time interaction creates a sense of urgency by emphasizing an auction-like experience that can significantly increase online customers' purchase intention (Heimbach et al., 2015; Beuckels & Hudders, 2016). For example, Lazada's live fashion runway has increased sales by 3.6 times compared to normal online selling. This reflects high customer engagement because customer expectations are fulfilled and speed up the consumption decision (Choi et al., 2016; Chung et al., 2017; Ramadan et al., 2018).

According to Farzin & Fattahi (2018), user-generated content regarding luxury fashion products and brands in social networks significantly impacts online consumers' purchase intention because customer engagement is higher when the source is familiar to the consumer. For example, some customers have more confidence in their friends than in the information provided by a luxury fashion brand (Barger et al., 2016; Choi & Lee, 2017).

User-generated content reflects the customer's willingness to pass information from a luxury brand's social media to others; it is a behavioral manifestation of customer engagement in response to the brand's activities (Morra et al., 2018). User-generated content created electronic word-of-mouth, positively affecting customer engagement, enhancing customer loyalty to the company, and increasing purchase intention of the company's products or services (Choi et al., 2016).

Firm-created content is the connection between luxury fashion firms and consumers using technological advancement, increasing the exposure of luxury fashion brands to communities worldwide to promote customers' purchase intention. For example, the firm-created content can stimulate customer engagement by catalyzing the online community towards a specific

event, such as a limited-time business promotion to close deals (Morra et al., 2018; Chu et al., 2019).

Firm-created content has been widely used to engage consumers actively in firms' marketing campaigns because it is beneficial in reaching a large audience and providing positive recommendations and communication between social media users. These are beneficial to create customer engagement and encourage customers' purchase intention. Previous studies have shown the positive influence of firm-created content on behavioral intention (Smith et al., 2016; Lindsey-Mullikin & Borin, 2017; Schultz & Jain, 2019)

Hypothesis 5 (H5): *There is a positive and significant relationship between customer engagement and online customers' purchase intention in luxury fashion*

Hypothesis 6 (H6): *Customer engagement mediates the relationship between product information and online customers' purchase intention of luxury fashion*

Hypothesis 7 (H7): *Customer engagement mediates the relationship between interaction and online customers' purchase intention of luxury fashion*

Hypothesis 8 (H8): *Customer engagement mediates the relationship between user-generated content and online customers' purchase intention of luxury fashion*

Hypothesis 9 (H9): *Customer engagement mediates the relationship between firm-created content and online customers' purchase intention of luxury fashion*

Method
A quantitative approach was adopted for this study, and a cross-sectional online survey questionnaire was used. The questionnaires were adapted from previous research papers in similar and relevant areas. In the questionnaire, independent variables such as product information, interaction, user-generated content, and the firm-created content used Likert 5-point scales ranging from 0 (strongly disagree) to 5 (strongly agree), with a value of 3 equal to "neutral" (Kim et al., 2015; Chung et al., 2020; Morra et al., 2018). Mediator customer engagement used a Likert 5-point scale, ranging from 0 (strongly disagree) to 5 (strongly agree), with a value of 3 equal to "neutral" (Dabbous & Barakat, 2020). Finally, online customers' purchase intention used a Likert 7-scale, ranging from 0 (strongly disagree) to 7 (strongly agree), with a value of 4 equal to "neutral" (Dabbous & Barakat, 2020). This study's target population is Malaysian adult consumers aged 18 and above.

The unit of analysis is individual consumers who have Instagram accounts and follow one of the top 15 luxury fashion brands based on the total number of followers on Instagram from Statista report (Clement, 2020). Respondents were filtered using screening questions, and only those who qualified participated in this survey. Convenience sampling (non-probability sampling techniques) is used in this research, in which the data are only collected from Malaysian consumers who are readily and easily reached. (Sekaran & Bougie, 2016). The sampling frame is based on age, education, occupation, and income. Research study on the effectiveness of digital marketing functionality of luxury fashion particularly focused on Instagram. Participants were asked to review the online experiences and answer measurement items accordingly. The minimum sample size of this study should be 139, estimated using G*Power.

A pilot test was conducted to select the measurement items with good reliability from 10 students whose major was IT, fashion design, and marketing. Also, modifications in wording were made to clarify the meaning of items in the luxury fashion context. To reach the target respondents, online questionnaires were distributed in Google form to Instagram luxury

fashion pages managed by local Malaysia and The Melium Group, one of Malaysia's largest online luxury fashion shopping platforms. When participants clicked the online survey link, they were directed to instructions on the study's objectives, followed by preliminary questions and measurement items—sampling duration from October to November 2020, 1 month. Although there is a significant population of Malaysians above 18 years old, it is believed that only those who love luxury fashion and are familiar with digital marketing are suitable target respondents. Therefore, around 500 questionnaires were distributed, and 167 valuable data were to be used for data analysis—online questionnaires collected in Google Forms. The data collected were cleaned and then analyzed using Smart PLS 3.0 (Ringle et al., 2015; Ramayah et al., 2016). This method of research was used due to the study's exploratory nature. The data were analyzed using two-phase approaches (Hair et al., 2016). The first approach is to analyze the accuracy and consistency of the measurement system variables, and the second is to evaluate the hypotheses (Hair et al., 2016).

Results

After deleting duplicates and incomplete responses, 167 valid surveys remained. According to the descriptive analysis, the study found that most respondents are female (53%) and male (47%). Age-wise, the majority of respondents are between 26 to 35 (73%), followed by 36 to 45 years (13%), 18 -25 years (11%), 45-55 years (2%), and above 55 years (1%). For the educational background, most of them hold a Bachelor's degree (53%), followed by a master's (24%), diploma (13%), secondary education (9%), PhD, and primary education both at (0.5%). Most of the respondents are single (60%), married (39.5%), and engaged (0.5%). For household monthly income, most of them earn more than RM6,000 (46%), followed by RM4001-RM5000 (16%), RM3001-RM4000 (15%), RM5001-RM6000 (10%), RM2001-RM3000 (8%) and less than RM2000 (5%).

Convergent validity is done to check the reliability and validity of the data. According to Hair et al (2017), for good results, factor loading >0.50, CR >0.70, AVE >0.50. Table 1 indicates that the model is valid and reliable. Standard deviation showed the variance between the set and mean values of the results, and a low standard deviation means stable and reliable; for example, product information has the lowest value from Table 1. Discriminant validity tests how different each construct is from the others, and HTMT is introduced to test. As reported, Table 2 shows that all Heterotrait-Monotrait (HTMT) criteria values were lower than 0.85, and therefore, discriminating validity has been checked and demonstrated. The suggested model, therefore, was accepted (Kline, 2015).

Table 3 Bootstrapping for 5000 samples is done on a tailed test (Hair et al., 2016). Critical values were added with T-values 1.65 (significance level= 5%) and T-values 2.33 (significance level= 1%) for the one-tailed test. For Table 4, Bootstrapping for 5000 samples is done on two-tailed tests. For the two-tailed test, the T-value shall be 1.96 (significant level = 5%) while the T value 2.57 (significant level = 1%).

Table 1

PLS Result of Convergent Validity Measures

Latent Variable	Measurement Item	Factor Loading	CR[a]	AVE[b]	Mean	Standard Deviation	Author
Product Information	PRI1	0.838	0.921	0.744	3.701	0.837	Kim et al., 2015
	PRI2	0.896			3.820	0.806	
	PRI3	0.823			3.713	0.834	
Interaction	INT1	0.803	0.866	0.618	3.707	0.904	Chung et al., 2020
	INT2	0.757			3.389	0.947	
	INT3	0.838			3.479	0.947	
	INT4	0.744			3.641	0.870	
User Generated Content	UGC1	0.823	0.895	0.680	3.760	0.798	Morra et al., 2018
	UGC2	0.849			3.754	0.851	
	UGC3	0.820			3.976	0.947	
	UGC4	0.807			3.844	0.868	
Firm Created content	FCC1	0.862	0.905	0.705	3.862	0.811	Morra et al., 2018
	FCC2	0.897			3.826	0.819	
	FCC3	0.814			4.024	0.804	
	FCC4	0.783			3.928	0.838	
Customer Engagement	CE1	0.876	0.873	0.697	3.796	0.988	Dabbous & Barakat, 2020
	CE2	0.865			3.719	0.941	
	CE3	0.7060			3.449	1.167	
Purchase Intention	PI1	0.873	0.921	0.744	5.084	1.342	Dabbous & Barakat, 2020
	PI2	0.886			4.725	1.417	
	PI3	0.816			4.419	1.602	
	PI4	0.873			4.425	1.576	

PRI: Product Information, INT: Interaction, UGC: User Generated Content, FCC: Firm Created Content, CE: Customer Engagement, PI: Purchase Intention
composite reliability, [b] average extracted variance

Table 2
Result of HTMT Criterion

Latent Variable	CE	FCC	INT	PI	PRI	UCG
CE						
FCC	0.413					
INT	0.378	0.483				
PI	0.752	0.522	0.366			
PRI	0.495	0.510	0.367	0.398		
UCG	0.514	0.731	0.524	0.551	0.370	

PRI: Product Information, INT: Interaction, UGC: User Generated Content, FCC: Firm Created Content, CE: Customer Engagement, PI: Purchase Intention

Table 3
Path Coefficient and Hypotheses Testing (One-Tailed)

Hypothesis	Relationship	Path Coefficient	F^2	T Value	P Value	Decision
Direct Effect						
H1	PRI -> CE	0.290	0.090	3.454	**0.000***	**Supported**
H2	INT -> CE	0.083	0.007	1.099	0.136	Not Supported
H3	UGC->CE	0.286	0.063	3.492	**0.000***	**Supported**
H4	FCC->CE	0.014	0.000	0.154	0.439	Not Supported
H5	CE->PI	0.635	0.676	12.922	**0.000***	**Supported**

***$p < 0.001$ ** $p<0.01$ *$p< 0.05$ (Based on one-tailed test with 5000 bootstrapping)
PRI: Product Information, INT: Interaction, UGC: User Generated Content, FCC: Firm Created Content, CE: Customer Engagement, PI: Purchase Intention

Table 4
Mediator table (Two-Tailed)

Hypothesis	Relationship	Std Beta	Std Error	T value	P Value	Confidence Interval		Decision
Indirect Effect						LL	UL	
H6	PRI -> CE -> PI	0.184	0.056	3.293	**0.001***	0.076	0.296	**Supported**
H7	INT -> CE -> PI	0.053	0.049	1.075	**0.282**	-0.038	0.157	**Not supported**
H8	UGC -> CE ->PI	0.182	0.057	3.169	**0.002***	0.073	0.302	**Supported**
H9	FCC ->CE -> PI	0.009	0.058	0.153	**0.879**	-0.105	0.128	**Not supported**

***$p < 0.001$ ** $p<0.01$ *$p< 0.05$ (Based on two-tailed test with 5000 bootstrapping)
PRI: Product Information, INT: Interaction, UGC: User Generated Content, FCC: Firm Created Content, CE: Customer Engagement, PI: Purchase Intention

Based on Table 3, showing the direct effect of variables, product information (β = 0.290, P<0.001) and user-generated content (β =0.286, P<0.001) have significant impacts on customer engagement. Besides, customer engagement (β =0.635, P<0.001) has a significant impact on the online customers' purchase intention of luxury fashion, whereas interaction (β = 0.083, p > 0.05) and the firm-created content (β =0.014, P > 0.05), have an insignificant impact on customer engagement.

According to Table 4, showing the indirect effect of variables, customer engagement has successfully mediated the relationship between product information (β =0.184, P<0.001) and user-generated content (β =0.182, P≤0.001) with the online customers' purchase intention of luxury fashion. On the other hand, customer engagement did not successfully mediate the relationship between interaction (β =0.053, P > 0.05) and firm-created content (β =0.009, P > 0.05) with the online customers' purchase intention of luxury fashion. Therefore, H1, H3, H5, H6, H8 are supported while H2, H4, H7 and H9 is not supported.
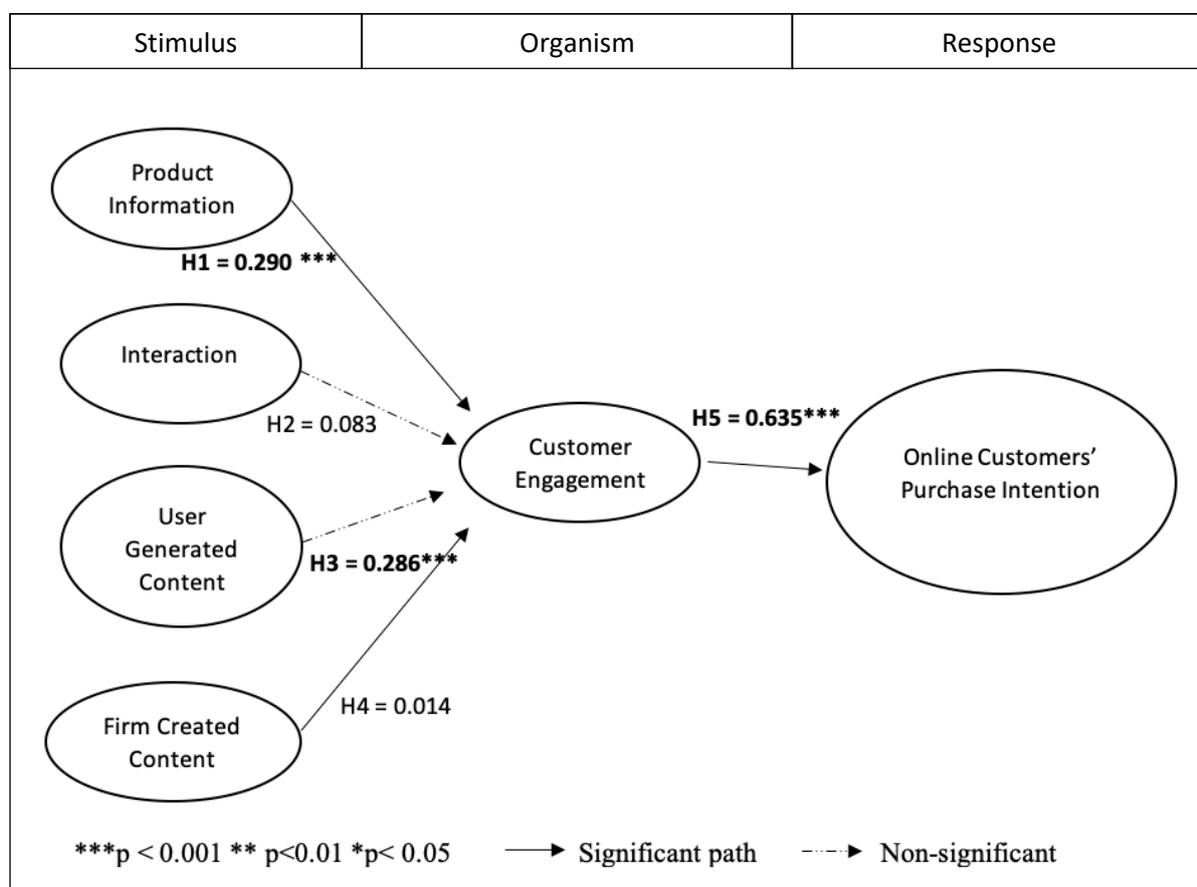

Figure 1. Research Model

Discussion and Implications of the Study

This study proposed an S-O-R model by extending this study with influencing factors such as product information, interaction, user-generated content, and firm-created content to see the direct effect of technology functionalities on customer engagement. This model argued whether customers' intention to purchase luxury fashion online was directly affected by customer engagement and how customer engagement mediated between influencing factors and online customers' purchase intention by showing the indirect relationship. Results presented in the previous section validated the framework.

The findings support the strong relationship between customer engagement and purchase intention. This indicates that respondents interested in digital marketing of luxury fashion positively intend to purchase the products. The correlation is also confirmed in a study by Barger et al. (2016) and Rovai et al. (2018) that customer engagement represents individual participation in luxury fashion across multiple channels and drives purchase intention over time. According to Kumar and Pansari (2016) and Dabbous and Barakat (2020), customers engage in luxury fashion through actions with beneficial companies through purchase transactions, referring other customers to the firm, and providing feedback regarding product and service ideas.

This study supports the positive relationship between product information and customer engagement. In this study, product information contributed more to the customer engagement than the user-generated content. The result also revealed that customer engagement significantly mediated the relationship between product information and online customers' purchase intention on luxury fashion, which suggested that the content quality of product information will likely stimulate customers to purchase luxury fashion.

The result parallels the previous findings that the value of product information has been considered a critical determinant of consumers' attitudes (Kim & Phua, 2020). Hollebeek and Macky (2019) also found that product information is a significant driver of consumer engagement. According to Kim et al. (2015) and Dabbous & Barakat (2020), product information of luxury fashion has differentiated aesthetic experiences to engage their target consumers. The same study by Smith et al. (2016) revealed that product information strongly influences consumer behavior from the S-O-R perspective.

Besides, this study showed a positive relationship between user-generated content and customer engagement. Customer engagement also significantly mediated the relationship between user-generated content and online customers' purchase intention on luxury fashion. This aligns with previous research by Schivinski and Dabrowski (2016) and Morra et al. (2018), which indicated that user-generated content is a positive antecedent of favorable customer engagement toward luxury fashion brands. Luxury fashion brands that can influence customer engagement in a multichannel environment are more likely to stimulate customers' purchase intentions and gain a competitive advantage (Smith et al., 2016). Previous findings found that fashion is better suited for the socially rich due to the increasing use of brand communities and social media at luxury fashion brands (Baker et al., 2018).

However, the result showed no significant relationship between firm-created content and customer engagement. Also, it indicated that customer engagement did not significantly mediate the relationship between firm-created content and online customers' purchase intention on luxury fashion. According to Choi & Lee (2017), customers generally trust user-generated content more than firm-created content because they believe marketers would overpromise and cover the product's weaknesses. Moreover, the firm-created content typically describes product technical specifications and embeds product usage experiences from the customer's perspective, helping customers find products matching their preferences.

Moreover, the result also showed that interaction had no significant relationship with customer engagement, and customer engagement did not significantly mediate the relationship between interaction and online customers' purchase intention on luxury fashion. This concluded that interaction did not work alone and usually came in a series of actions by online service agents' marketing efforts, such as interaction, entertainment, trendiness, customization, and problem-solving (Kim et al., 2016). Besides, the effect of customer

engagement through virtual interaction may vary in different channels, for example, through mobile, tablet, or laptop (Erdoğmuş & Tatar, 2015; Lemon & Verhoef, 2016; Bolton et al., 2018).

Conclusion
This study proves Malaysian consumers have strong intentions toward luxury fashion purchases. Household income is more substantial than personal income in predicting customer buying power (Mamat et al., 2016). This study revealed that most respondents have high household incomes, earn more than RM6000, and are likely to engage with luxury fashion. A fragmented market characterizes the current luxury fashion market; therefore, studies based on a consumer approach and how technology and social media can help luxury fashion brands gain competitive advantages are warranted (Kauppinen-Räisänen et al., 2019). This study gives a clearer picture for luxury fashion firms regarding whether they should use the Internet purely to communicate or as a sales channel (Baker et al., 2018; Rovai, 2018). This study uses the S-O-R model with a sample of online users to show the effect of several determinants such as product information, interaction, user-generated content, and firm-created content on online consumers' purchase intentions through customer engagement as a potential mediator; this study concentrated on the digital marketing through official luxury fashion brands' Instagram account rather than the brand and product itself. Instagram is popular for its visually oriented nature (Godey et al., 2016; Pentina et al., 2018) and celebrity endorsements to engage the community (Athwal et al., 2019). In this context, Instagram has proven valuable for luxury fashion through product information and user-generated content.

Limitation & Recommendation
Though this study fulfilled its research target, a few limitations were also identified for further improvement in future research in this field. First, this research focuses solely on Malaysia's online purchasing intentions for luxury fashion. It is, therefore, useful to have this research method evaluated in another country to compare this model framework with different living styles in another country. Future research should also find a quantitative approach to validate and expand the current research paradigm of luxury fashion online purchasing intention and study on different social media platforms other than Instagram.

In addition, other factors such as brand awareness, customer satisfaction, and brand involvement could also be significant determinants of online purchasing intentions of luxury fashion, apart from the variables or antecedents described above that were being evaluated in this research. Future research could include integrating these few variables into the research and providing a more detailed understanding of the industry.

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