Social Media Influencers' Impact to Purchase Intention: The Moderating Effect of Brand Engagement

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ABSTRACT

In the modern age of digitalization, influencer marketing takes place primarily on social media platforms. Given this trend, the ability of social media influencers (SMIs) to persuade consumer purchase behaviour continues to gain attention. Although many companies and brands collaborate with SMIs, the influence of SMIs' various attributes on consumer purchase intention remains relatively unexplored. Therefore, this research examined the impact of SMIs on purchase intention among local public university students in Malaysia based on the Social Learning Theory. Survey data collected from 200 respondents was analyzed using the partial least squares-structural equation modelling (PLS-SEM) technique. The results demonstrate that the product celebrity match-up model and the meaning transfer model have a positive impact on consumers' purchase intention. Consumer attitude was found to play a mediating role in these relationships, while brand engagement plays a moderating role between consumer attitude and purchase intention. These findings offer important theoretical and managerial implications.

Keywords: Influencer Marketing, Social Media Influencers, Social Learning Theory, Celebrity Endorsement, Brand Engagement, Purchase Intention, PLS-SEM

INTRODUCTION

Social media influencers (hereafter SMIs) and "micro-celebrities" have gained much attention due to the global pandemic (Archer & Nalloor, 2021). Major non-profits, governments, and even commercial brands are increasingly leveraging SMIs to create and distribute content for specific goals (Audrezet et al., 2020; McCosker, 2018). SMIs are described as those who have created a sizeable network of social media followers and, as a result, have earned the potential to influence their followers' products (Ki & Kim, 2019). SMIs are used as a strategic and powerful way of promoting products and advertising (Klassen et al., 2018) to highlight brands, influence consumer loyalty, and increase purchase intentions.

SMIs are not merely marketing tools for social media platforms (e.g., Facebook, YouTube, Instagram, Twitter, TikTok, etc.), but rather social relationship assets that brands can collaborate with to achieve their marketing goals (Geyser, 2021). As SMIs have greatly grown in number and impact, nearly 93% of marketers use influencers as a focal action to

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reach online consumers (Fertik, 2020). Industry reports indicate that the global market for influencer marketing reached $148 million in 2019, an increase of approximately 7.95% from 2018, and is expected to exceed $373 million by 2027 (Statista, 2016). Further, brands are expected to spend $15 billion on global influencer engagement by 2022 (Business Insider, 2021). This shows that SMIs play a critical role in promoting product engagement and brand loyalty (Tapinfluence, 2015), as they are better equipped to communicate with niche consumer segments (Lim et al., 2017).

In the context of Malaysia, according to DataReportal (2020), the number of mobile users in Malaysia was approximately 26 million in 2020, with a penetration rate of 81% of the total population. The average Malaysian spends about 9.17 hours per day using the Internet (Statista, 2021). These figures indicate the importance of the Internet to Malaysians, justifying the extensive involvement of SMIs in online product advertising. For example, Chef Wan is Malaysian celebrity who promotes Vesawit, as is Siti Nurhaliza who speaks for Pepsi. Furthermore, statistics show that brands have spent at least RM567 million on influencer management in Malaysia (SushiVid, 2020). With regard to the Covid-19 outbreak, Malaysia is one of the most heavily infected Asian countries. However, despite the current situation, SMI promotion is still the preferred solution to advertising barriers in Malaysia as it is completely digital and can be done in a closed environment (SushiVid, 2020).

SMIs are considered to be aligned with brand image; thus, they constitute a powerful force in influencing consumers' purchase intention (Abdul Rahim et al., 2019; Cham, Cheng, Low, & Cheok, 2020; Cheng et al., 2019; Hong et al., 2020; Lim et al., 2019; Nguyen, 2021). Many previous studies have shown the ability of SMIs to engender higher purchase intention (Binwani & Ho, 2019; Hsu et al., 2013; Meng & Wei, 2015), positive word-of-mouth (Casaló et al., 2018; Hughes et al., 2019), brand attitude (Colliander & Dahlén, 2011; Xiao et al., 2018), and brand engagement (Hughes et al., 2019). Evidence from studies on SMIs further suggests their incremental effect on SMEs' income (Breves et al., 2019; Priyankara et al., 2017). In addition, many empirical studies (e.g., Evans et al., 2017; Dhanesh & Duthler, 2019; Lou & Yuan, 2019) support the positive effect of SMIs on product purchase. Brands can also directly use SMIs to improve and enhance their public relations so they can gain higher engagement and market presence (Arora et al., 2019). Identifying SMIs is thus probably the most important marketing strategy to increase the impact of a brand on its target audience through its influencers (Lou & Yuan, 2019). Although SMIs have been studied to an extent, limited research in Malaysia has specifically investigated the relationship between the specific attributes of SMIs and their impact on consumers' purchase intention.

Many researchers posit that brand engagement, by forging a real emotional connection with the brand, should be the ultimate objective of marketing, since it is the point where consumers "see" the brand as being able to meet their expectations. The more a consumer engages with a brand, the higher probability of him/her behaving positively towards the brand, as real emotional engagement correlates highly with positive consumer behavior, sales, and profitability (Robert et al., 2013). As such, brand engagement was proposed as a moderator between consumer attitude and purchase intention in this research framework, as previous findings suggest that getting attention and even awareness for a brand is not enough to affect purchase intention.

In light of the aforementioned, this research developed and tested a comprehensive framework to assess the effectiveness of SMIs, using the Social Learning Theory (SLT) as its foundational basis. It assessed how the five influence channels of SMIs (celebrity

endorsement, source credibility model, source attractiveness model, product celebrity match-up model, and meaning transfer model) affect consumer attitude and subsequent purchase intention. It also explores the role of brand engagement in the pathway between consumer attitude and purchase intention. This framework offers new and interesting insights on the impact of SMIs on the purchase intention of the younger generation of consumers in Malaysia.

THEORETICAL BACKGROUND

The SLT was first introduced by Albert Bandura in 1963, who proposed that learning is a cognitive process occurring in a social context purely through observation or direct instruction, even in the absence of motor reproduction or direct reinforcement.

The SLT also denotes an observational learning process, which takes place when individuals acquire learning outcomes by observing the behavior of others (Westen, 1999). This theory highlights that the modelling effect is achieved when individuals learn to emulate a behavior exhibited by a model. In vicarious conditions, this means that learning is the result of observing the consequences of behavior for someone else.

According to Bandura (1963), there are three types of modelling stimuli, i.e., live model, verbal instruction, and symbolic. A live model is an actual person who demonstrates the desired behavior to others. Next, when an individual describes the desired behavior in detail and instructs participants on how to engage in the behavior, it is called verbal instruction. Finally, symbolic modelling happens when the observer's behaviors derive from the media, such as movies, television, the Internet, literature, and radio. Therefore, this theory is suitable to explain how the use of SMIs in advertisements influences audience's consumption intentions, given that the latter watch, listen, observe, and eventually consume what the celebrities endorse.

Furthermore, the SLT posits those norms, attitudes, motivations, behaviors, and values are acquired by young consumers through reinforcement and social interaction (Moschis & Churchill, 1978). According to Subramanian and Subramanian (1995), values, attitudes, behaviors, and norms are transferred from socialization agents to young adults via direct as well as indirect interaction.

In conclusion, the SLT is significantly related to the current study on SMIs, as influencers are considered socialization agents from whom consumers learn consumption-related behavior. Research by Makgosa (2010) also incorporated the SLT in understanding the role of celebrities in consumption-related behaviors. Therefore, this research proposed the SLT as its theoretical framework. Referring to Figure 1, consumer purchase intention is predicted to be influenced by consumer attitude and the effectiveness of SMIs in promoting the product (i.e., celebrity endorsement, source credibility model, source attractiveness model, product celebrity match-up model, and meaning transfer model), with brand engagement acting as the moderating variable.

HYPOTHESES DEVELOPMENT

Celebrity Endorsement

A celebrity endorser of an advertisement is an alternative for a company to draw attention, gain prolonged association, and enhance the probability of recall. Zafar and Rafique's (2012) research found that celebrity endorsement has a reasonable impact on customers' purchase intention. In addition, Jain's (2011) results suggest that celebrity endorsement in advertising positively affects consumers' brand attitude and purchase intention. Celebrity endorsements can bring about a more favourable rating of an advertisement along with better product evaluation (Dean & Biswas, 2001). High financial returns are also generated by companies that employ celebrity endorsement as a promotion tool (Erdogan, 1999). Similarly, research by Wang et al. (2013) corroborates that the usage of endorsers in advertising increases product sales, especially when the endorsers are celebrities who already have a reputation in specific fields. Based on these findings, the hypothesis was generated as:

H1: *Celebrity endorsement has a positive relationship with consumer's purchase intention.*

Source Credibility

Trustworthiness and expertise are the two elements in the source credibility model. Expertise is the degree to which consumers perceive sources to be competent enough to provide accurate information, whereas trust is dependent on the behavioural intentions of another person (Tan et al., 2019; Todd & Melancon, 2018). In contrast to traditional celebrities who gain public recognition for their professional talents, SMIs have earned their reputation by successfully portraying themselves as experts on social media platforms (Khamis et al., 2017). SMIs who are perceived as experts are more credible because they know the products they recommend to their audience (Kapitan & Silvera, 2016). That is, consumers tend to be positively influenced when SMIs are perceived as experts about a product or when their profession is related to the product. Moreover, unlike celebrities, SMIs are less distant and aloof; rather, they are perceived as more approachable and authentic (Chapple & Cownie, 2017). As a result, SMIs tend to maintain good relationships with their followers and engender followers' trust. SMIs with high levels of expertise and credibility are therefore presumably more influential in dictating the behavior of their followers (Lim et al., 2017). It is pertinent to prove that this statement applies precisely to the Malaysian context. Accordingly, the following hypothesis was formulated:

H2: *Source credibility model has a positive relationship with consumer's purchase intention.*

Source Attractiveness

The attractiveness model posits that the effectiveness of a message relies on the physical characteristics of the source. In this regard, an endorser's physical attractiveness is perceived to influence the target's acceptance of the advertisement via the phenomenon of identification (Stefan, 2009). In particular, the attractiveness of advertising depends on the endorser's similarity, likeability, and familiarity to the consumer. Findings on the attractiveness model support Cialdini's (2007) proposition that 'we like people who are like us' and that 'this fact seems to hold whether the similarity is in the areas of opinions, personality traits, background, or lifestyle'. In addition, similarities between the endorser and his/her audience are important when a wide range of products or services is offered and when audience members are heterogeneous (Shimp, 2003). Therefore, when a spokesperson is perceived to be similar, there is a higher probability of exerting a greater influence on consumers' attitudes and choices. Based on this discussion, the hypothesis was postulated as:

H3: *Source attractiveness model has a positive relationship with consumer's purchase intention.*

Product Celebrity Match-up Model

Congruence between the endorser and the product is vital to achieving excellent results. If an endorser fails to influence the organization's target market, the money spent on the endorsement is wasted. Mowen et al. (1979), using balance theory, studied the existing relationships among the target audience and the endorser, the product and the endorser, and the consumer and the product. Their results showed that when a strong affective relationship exists between each of these pairs, an endorser has maximum effectiveness. Moreover, multiple research findings support that both similarity and likeability are determinants of identification and interpersonal attraction between the source and the message recipient (Braunstein & Zhang, 2005). Based on the aforementioned evidence, the hypothesis was formed as follows:

H4: *Product Match-up between celebrities has a positive relationship with consumer's purchase intention.*

Meaning Transfer Model

The meaning transfer model was created to describe the celebrity endorser process. According to McCraken (1989), the effectiveness of a celebrity endorser's message transmission depends on his/her ability to bring meaning to the endorsement process. Moreover, Langmeyer and Walker (1991) showed that when celebrities are combined with products, their perceived differences affect the meaning conveyed by the products. When the endorser is able to deliver a message well, he/she exerts a positive impact on the advertisement and ultimately influences purchase intention. Therefore, the hypothesis was generated as below:

H5: *Meaning Transfer by a celebrity has a positive relationship with consumer's purchase intention.*

Consumer Attitude

Escalas and Bettman (2005) found that in establishing brand meaning, consumers are affected by reference groups; thus, in an online context, personal attitude and behaviour creation are affected by both individual- and group-level variables. Specifically, consumer attitude is an important variable that impacts consumers' purchase intention, as a highly favourable brand attitude can strengthen the intention to purchase.

Marketing researchers have long been interested in consumer attitude, given its importance for successful marketing operations (Armstrong, 2009; Solomon et al., 2010). It is thus essential to identify the relationship between consumer attitude and purchase intention in the online context, since previous studies have proposed that attitude towards a product predicts or directly leads to purchase behavior (Cham. Cheng, & Lim, 2020; Chen, 2007; Fishbein & Ajzen, 1975; Tarkiainen & Sundqvist, 2005).

Attitude can be seen as a fixed way of thinking when it exists for a longer time. The more positive the attitude towards a behavior, the stronger the individual's intention to perform the

behavior (Tarkiainen & Sundqvist, 2005). Chen (2007) further stated that consumers' preference to purchase a particular product is based on their attitude and personal desire to perform the purchasing behavior. Based on these statements, the following hypothesis was put forth:

H6: *Consumer attitude has a positive relationship with consumer's purchase intention.*

Mediating Role of Consumer Attitude

The relationship between attitude and purchase intention has been discussed widely across the marketing literature. One of the determinant factors of behaviour in the Theory of Reasoned Action (TRA) framework is a person's attitude towards performing a behaviour, which can be considered their purchasing attitude (Ajzen, 1991; Chen, 2007). Interestingly, based on findings in related areas of research such as sponsorships and customer relationship management (CRM) (e.g., Barone et al., 2000; Ruth & Strizhakova, 2012), attitude plays a mediating role in the framework.

CRM studies have found that consumers form an attitude towards the alliance between a brand and non-profit organizations, which mediates the effects of CRM variables (e.g., fit and attitude towards the non-profit organization) on consumer behavior. A similar result was obtained in the sponsorship (e.g., Olson, 2010) and brand alliance (Simonin & Ruth, 1998) contexts.

Therefore, in this research, it was deduced that consumers form an attitude towards the effect of SMIs, which then acts as a mediator between the effectiveness of SMIs and consumers' purchase intention. Accordingly, the following were hypothesized:

H7a: *Consumer attitudes mediate the relationship between celebrity endorsement and consumer's purchase intention.*

H7b: *Consumer attitudes mediate the relationship between source credibility model and consumer's purchase intention.*

H7c: *Consumer attitudes mediate the relationship between source attractiveness model and consumer's purchase intention.*

H7d: *Consumer attitudes mediate the relationship between product match up model and consumer's purchase intention.*

H7e: *Consumer attitudes mediate the relationship between meaning transfer model and consumer's purchase intention.*

Moderating Role of Brand Engagement

From an academic standpoint, brand engagement has been defined in various ways. For example, it is known as the motivational level of a consumer's mental state in connection with a brand, which is dependent on context and is characterized by specific levels of cognitive, emotional, and behavioural activities. Other definitions state that engagement involves indirect interactions with a brand; the extent of an individual's participation and connection with an organization or its activities; or the behavioural representations of customers' perception of a brand or organization that are beyond mere purchase and derive from motivational stimuli (Leckie et al., 2016; Lim et al., 2021).

The marketing literature verifies the strong positive impact of customer brand engagement on customer retention from the organizational perspective (Fullerton, 2003). There is also significant evidence that as customers' level of involvement or engagement with a brand increases, various positive outcomes emerge, such as brand loyalty and purchase intention (Blanchard & Markus, 2004).

Previous research has further found causality between engagement and sales for brands, such that highly engaged consumers on media contribute to three times more sales than consumers who are simply exposed to the brand, while those who are engaged in advertising contribute eight times as much. Similarly, previous research supports the positive effect of customer engagement on purchase intention.

Dwivedi (2015) studied consumer brand engagement in the mobile phone context, highlighting the positive relationship between consumer brand engagement and loyalty, purchase intention, and word-of-mouth. A survey by Google, likewise, found that consumers who regularly engage with brands online typically buy more of their products (Google Think Insights, 2014). Following this discussion, the hypothesis was generated as follows:

H8: *Brand engagement moderates the relationship between attitude and purchase intention, where the positive relationship becomes stronger when brand engagement is high.*

Figure 1: Research Framework
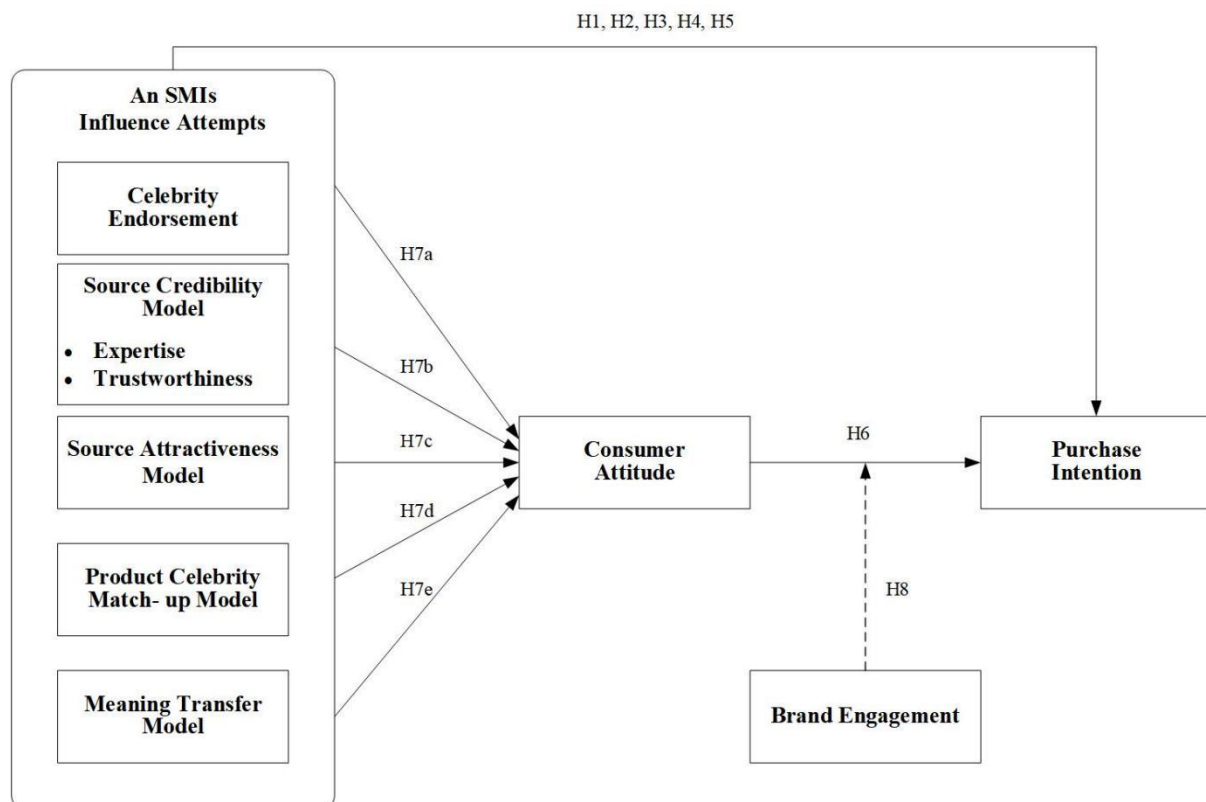
METHODOLOGY

Data Collection Procedure

The purpose of this research was to investigate the effectiveness of SMIs on the purchase intention of local university students in Malaysia. Data shows that: (i) 26% of Malaysian citizens are Millennials (generally those born between 1980 and 2000); (ii) Internet penetration among the 18 to 24 age group is 98%; and (iii) 99% of these individuals have a smartphone (Nielsen, 2019). This "always-on" group is already entering the market and is expected to have strong purchasing power in the coming years. Therefore, the study population of Malaysian public university students was justified.

Multiple sampling techniques were used to select target respondents in a manner that reduces bias in data collection. The first method was judgmental sampling, where respondents were chosen based on their fulfillment of appropriate criteria as judged by the researcher (Zikmund et al., 2012). The criteria were respondents who were: (i) currently pursuing Bachelor's, Master's, or PhD level education and (ii) from local public universities in Malaysia, namely University of Malaya (UM), University of Science Malaysia (USM), University Putra Malaysia (UPM), National University of Malaysia (UKM), and University of Technology Malaysia (UTM). The purpose of these criteria was to ensure that the sample could provide information relevant to the study (Saunders et al., 2012). The second method used to select samples was quota sampling. The researcher categorized the population by relevant characteristics and determined the desired proportion to sample from each category (Zikmund et al., 2013). In this study, the sample population was divided into five universities, and 40 sample units were selected from each university to answer the study questionnaire.

This study tested its instrument in two stages. First, a panel of three experts participated in the pre-test. These experts evaluated the questionnaire by assessing the relevance of its conceptualization of celebrity endorsement, appraising the suitability of the terminologies used to the context, and offering further suggestions, critiques, and comments on the items in the questionnaire. Second, a pilot test study was conducted with 30 respondents. From the pre-test and pilot test procedures, minor changes to item wording and layout were made to the questionnaire to ensure that the questions would be readily understood by all respondents (Zikmund et al., 2012). The items in the final instrument are shown in Appendix 1.

The completed questionnaires were checked to confirm that none had missing or straight-lining answers. Following the guidelines of Hair et al. (2019b), the sample size of 200 was considered sufficient to meet the minimum sample size required for post-hoc analysis. Of the 200 respondents in this study, 113 were female (56.5%) and 87 were male (43.5%). Most respondents were from the 21 to 30 age group (90%) and had a basic degree (85.5%). Given our target population of university students, a majority of the respondents were, as expected, Malaysian students (95.5%) with a monthly income of less than RM1,000 (78.50%) (see Table 1).

Table 1: Demographic Profile of The Sample (n=200)

Variable	Characteristics	Frequency (n)	Percentage (%)
Gender	Male	87	43.50
	Female	113	56.50
Age	20 years and below	20	10.00
	21-30 years	180	90.00
Nationality	Malaysian	191	95.50
	Non-Malaysian	9	4.50
Income	Less than RM1000	157	78.50
	RM1001 - RM 2000	23	11.50
	RM 2001- RM3000	16	8.00
	RM 3001- RM4000	3	1.50
	More than RM4000	1	0.50
Educational Level	Diploma	4	2.00
	Basic Degree	171	85.50
	Master	16	8.00
	PhD	9	4.50
University	University of Malaya	40	20.00
	University of Science Malaysia	40	20.00
	University Putra Malaysia	40	20.00
	National University of Malaysia	40	20.00
	University Technology Malaysia	40	20.00
Total		**200**	**100.00**

Measures

All the items for the independent variables were rated on a 5-point Likert scale and were adopted from existing scales, i.e., celebrity endorsement (Kumar, 2010), source credibility (Yi, 2012), source attractiveness (Yi, 2012), product celebrity match-up (Chiu et al., 2009), and meaning transfer (Rangsima, 2013). However, a 7-point Likert scale was used to measure the dependent variable, purchase intention (Kumar, 2010), the mediator, consumer attitude (Rangsima, 2013), and the moderator, brand engagement (Sprott et al., 2009).

RESULTS

This research involved both reflective and formative indicators, many latent variables (LV=8), and complex conceptual framework modelling. In consideration of this, PLS-SEM offered the flexible capability to analyse the measurement and structural models to reduce type 1 and type 2 errors. Henseler et al. (2009) also highlighted that PLS is suitable for large complex models with many latent variables and indicators. The phenomenon studied in this research is relatively new, focusing on the effects of SMIs and brand engagement on purchase intention among students in Malaysian public universities. According to Chin and Newstead (1999), when the phenomenon under research is relatively new or changing, or when the theoretical model or measures are not well-established, the PLS approach is suitable to be applied. Moreover, the main goal of analysis was prediction rather than model comparison; therefore, the PLS technique was deemed more appropriate. We used SmartPLS 3.3.3 software to test the proposed research model (Sarstedt & Cheah, 2019).

Common Method Variance (CMV)

Before running any other analytical tests, common method variance (CMV) was first examined using Harman's Single Factor test (Jarvis et al., 2003; Podsakoff et al., 2003; Podsakoff & Organ, 1986). The results indicated that the largest variance explained by the first factor was 46.27% of the total variance. Since no general factor emerged from the factor analysis, CMV was not significant in this data set (Podsakoff & Organ, 1986).

Assessment of Reflective Measurement Model

The measurement model's construct reliability is evaluated using composite reliability (CR) and convergent validity. The indicator loadings, CR values, and average variance extracted (AVE) values of the reflective constructs are shown in Table 2. According to Hair et al. (2014), loadings that exceed the recommended value of 0.708 can be retained. In this research, all the constructs were able to meet the loading requirement. In addition, all six CR values were above the minimum threshold of 0.7, while all the constructs' AVEs were greater than 0.5 (Hair et al., 2014). Therefore, the constructs met reliability and convergent validity requirements.

The discriminant validity of the model was then assessed. According to Fornell and Larcker (1981), items should load more strongly on their constructs in the model, and the AVE shared between each construct and its measures should be greater than that shared between the construct and other constructs. As illustrated in Table 3, all constructs exhibited satisfactory discriminant validity (Fornell & Larcker, 1981), where the square roots of AVE (diagonal) were larger than the correlations (off-diagonal) for all reflective constructs.

Table 2: Reflective Measurement Model

Construct	Indicator	Scale	Loading	AVE	CR
Celebrity Endorsement	CE1	Reflective	0.831	0.696	0.902
	CE2		0.837		
	CE3		0.821		
	CE4		0.850		
Source Attractiveness Model	A1	Reflective	0.798	0.622	0.908
	A2		0.772		
	A3		0.832		
	A4		0.724		
	A5		0.805		
	A6		0.799		
Product Celebrity Match-up Model	PM1	Reflective	0.827	0.686	0.897
	PM2		0.784		
	PM3		0.865		
	PM4		0.836		
Meaning Transfer Model	MT1	Reflective	0.864	0.740	0.898
	MT2		0.877		
	MT3		0.850		
Consumer Attitude	CA1	Reflective	0.823	0.759	0.940
	CA2		0.852		
	CA3		0.909		
	CA4		0.898		
	CA5		0.873		

Purchase Intention	PI1	Reflective	0.926	0.858	0.960
	PI2		0.930		
	PI3		0.940		
	PI4		0.907		
Brand Engagement	BE1	Reflective	0.873	0.798	0.941
	BE2		0.904		
	BE3		0.903		
	BE4		0.893		

Note: AVE= Average Variance Extracted and CR= Composite Reliability

Table 3: Discriminant Validity using Fornell and Lacker (1981)

Construct	BE	CE	CA	Expertise	MT	PM	PI	SA	SC	Trustworthiness
BE	**0.893**									
CE	0.565	**0.835**								
CA	0.725	0.607	**0.871**							
Expertise	0.329	0.543	0.565	**Formative**						
MT	0.501	0.531	0.650	0.652	**0.864**					
PM	0.412	0.470	0.610	0.626	0.728	**0.828**				
PI	0.641	0.543	0.803	0.576	0.677	0.673	**0.926**			
SA	0.512	0.608	0.608	0.643	0.719	0.673	0.613	**0.789**		
SC	0.313	0.520	0.549	0.918	0.660	0.618	0.552	0.643	**Formative**	
Trustworthiness	0.227	0.382	0.414	0.628	0.527	0.475	0.403	0.505	0.885	**Formative**

Note: Diagonals represent the square root of the AVE while the off-diagonals represent the correlations; CE (Celebrity Endorsement), CA (Consumer Attitude), MT (Meaning Transfer Model), PM (Product Celebrity Match-up Model), PI (Purchase Intention), SA (Source Attractiveness Model), SC (Source Credibility Model).

Assessing Formative Measurement Model

To validate the formative measure, i.e., source credibility, convergent validity was assessed using redundancy analysis (Chin, 1998). Formative measures that yield a path coefficient more than the threshold of 0.70 indicate a sufficient degree of convergent validity (Sarstedt et al., 2013), which was achieved in this study. The sub-dimensions of source credibility (expertise and trustworthiness) yielded variance inflation factors (VIFs) lower than 5.0, suggesting that the problem of multicollinearity was not present in the model. Therefore, the formative sub-dimensions were significant.

Table 4: Measurement Properties for Formative Construct

Construct for HOC	Sub- Dimension for LOC	Scale	Convergent Validity	Weights	VIF	t-value weights	sign
Source Credibility Model	Expertise	Formative	0.778	0.598	1.650	26.444**	0.000
	Trustworthiness			0.509	1.650	30.946**	0.000

Note: *p< 0.05; **p<0.01; HOC (High order construct)

Structural Model

It is important to make sure that there are no lateral collinearity issues in the structural model before evaluating it. According to Table 5, the VIF score for each construct in this research

was below the threshold value of 5.0 (Hair et al., 2014). Thus, it was concluded that there were no lateral collinearity issues.

The purpose of assessing path coefficients is to evaluate the significance of the hypothesized relationships between the constructs. The current study model hypothesized five direct relationships between its constructs. To test the level of significance, t-statistics for all paths were generated using SmartPLS bootstrapping. The results showed that celebrity endorsement (β=0.017, t=0.320, p=0.375), source credibility (β=0.002, t=0.031, p=0,488), and source attractiveness model (β=0.024, t=0.423, p=0,336) have no direct relationship with purchase intention. Therefore, hypotheses H1, H2, and H3 were not supported (see Table 5). On the contrary, product celebrity match-up (β=0.208, t=2.106, p<0.003), meaning transfer (β=0.132, t=2.106, p<0.018), and consumer attitude (β=0.565, t=9.042, p<0.000) revealed significant positive effects on purchase intention. Thus, hypotheses H4, H5, and H6 were supported.

The level of R^2 was then assessed. According to Hair et al. (2014), R^2, also known as the co-efficient of determination, represents the amount of variance in the endogenous construct that can be explained by all the exogenous constructs associated with it. As illustrated in Table 6, the R^2 value of 0.546 for consumer attitude indicates that the exogenous constructs (celebrity endorsement, source credibility model, source attractiveness model, product celebrity match-up model, and meaning transfer model) accounted for 54.60% of the variance in consumer attitude in this study. Furthermore, the R^2 value of 0.715 for purchase intention suggests that the aforementioned SMI attributes and consumer attitude accounted for 71.50% of the variance in purchase intention. The R^2 scores of consumer attitude and purchase intention were considered substantial in their explanatory power, as they were greater than 0.26 (Cohen, 1988).

Subsequently, the effect size (f^2) was evaluated to cross-check the importance of each path (Hair et al., 2019a). The results of the five exogenous effect sizes on the endogenous constructs are shown in Table 5. Of these, the majority of the exogenous variables had a trivial effect size, while four had a small effect size (i.e., celebrity endorsement–consumer attitude, product celebrity match-up–consumer attitude, meaning transfer–consumer attitude, and product celebrity match-up–purchase intention). Only one path reported a medium effect size (i.e., consumer attitude-purchase intention). These results indicate that researchers should put more effort in increasing consumer attitude to create a high impact on purchase intention. According to Geisser (1974) and Stone (1977), the purpose of assessing predictive relevance, Q^2, is to examine if the exogenous constructs have predictive power over the endogenous constructs using the blindfolding procedure. A Q^2 value larger than zero indicates that the exogenous constructs have predictive ability for the endogenous constructs (i.e., cross-validated redundancy) (Hair et.al, 2014). Table 6 shows that both the endogenous constructs (consumer attitude and purchase intention) had Q^2 scores above zero, thereby validating the predictive relevance and validity of the model.

Table 5: Assessment of Path Relationships

Path Relationship	Std. Beta	Std. Error	t-value	p-value	First Set		Second Set	
					VIF	Consumer Attitude (f^2)	VIF	Purchase Intention, (f^2)
H1) CE -> PI	0.017	0.054	0.320	0.375	1.679	0.125 (S)	1.994	0.000 (T)
H2) SC -> PI	0.002	0.058	0.031	0.488	2.103	0.003 (T)	2.262	0.002 (T)

H3) SA -> PI	0.024	0.056	0.423	0.336	2.743	0.004 (T)	2.807	0.000 (T)
H4) PM -> PI	0.208	0.076	2.810**	0.003	2.443	0.036 (S)	2.553	0.068 (S)
H5) MT -> PI	0.132	0.064	2.060*	0.020	2.891	0.050 (S)	3.063	0.016 (T)
H6) CA -> PI	0.565	0.062	9.042**	0.000			3.189	0.249 (M)

Note: *p<0.05, **p<0.01; CE (Celebrity Endorsement), SC (Source Credibility Model), SA (Source Attractiveness Model), PM (Product Celebrity Match-up Model), MT (Meaning Transfer Model), PI (Purchase Intention). f^2 score interpretation (0.35 large effect size, 0.15 medium effect size, 0.02 small effect size, <0.02 trivial effect size)

Table 6: Assessment of Coefficient of Determination and Predictive Relevance

Construct	Co-efficient of Determination (R^2)	Predictive Relevance, Q^2
Consumer Attitude	0.546	0.406
Purchase Intention	0.715	0.551

Note: R^2 score interpretation (0.26 substantial-0.13 moderate-0.02 weak) *(Cohen, 1989);* Q^2>0

Assessment of Mediation Effect

This section presents the mediation results of consumer attitude between SMI attributes (i.e., celebrity endorsement, source credibility model, source attractiveness model, product celebrity match-up model, meaning transfer model) and purchase intention. The bootstrapping procedure was applied to examine the mediation effect (Preacher & Hayes, 2008), the results of which are shown in Table 7.

The indirect effects of consumer attitude for H7a (celebrity endorsement), H7d (product celebrity match-up), and H7e (meaning transfer) were supported. Preacher and Hayes (2008) suggested that a mediation effect is present when the 95% bootstrap confidence interval does not straddle a zero between the upper and lower intervals. Based on the results, H7a (LL=0.097, UL=0.236), H7d (LL=0.041, UL= 0.174), and H7e (LL=0.062, UL=0.227) did not straddle a zero, indicating that mediation effects exist in these relationships. However, H7b (source credibility) and H7c (source attractiveness) were not supported, implying that consumer attitude does not mediate these paths.

Table 7: Mediation Results

Hypothesis	Relationship	Beta a*b	Std. Error	t-value	Result	Bootstrapped Confidence Interval (BCI)	
						95% LL	95%UL
H7a	CA-CE-PI	0.174	0.043	4.080**	S	0.097	0.236
H7b	CA-SC-PI	0.029	0.039	0.750	NS	-0.030	0.095
H7c	CA-SA-PI	0.038	0.044	0.850	NS	-0.031	0.116
H7d	CA-PM-PI	0.113	0.041	2.757**	S	0.041	0.174
H7e	CA-MT-PI	0.145	0.049	2.991**	S	0.062	0.227

Note: **p<0.01, *p<0.05
CA (Consumer Attitude), CE (Celebrity Endorsement), SC (Source Credibility Model), SA (Source Attractiveness Model), PM (Product Match-up Model), MT (Meaning Transfer Model), PI (Purchase Intention); S: Significant; NS: Not Significant

Moderating Effect of Brand Engagement

The results in Table 8 report that the moderating effect of brand engagement on the relationship between consumer attitude and purchase intention was supported (H8) (β=0.086, t-value=1.798, p<0.039). An interaction plot was drawn based on the significant moderating effect of H8 (see Figure 2). As can be seen in the figure, the line labelled high brand engagement has a steeper gradient than the line for low brand engagement. This indicates that consumer attitude has a stronger positive effect on purchase intention when engagement is high.

Table 8: Moderation of Band Engagement

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	p-value	Decision
H8	BE*CA→PI	0.086	0.048	1.798*	0.039	S

Note: *p<0.05, BE (Brand Engagement), CA (Consumer Attitude), PI (Purchase Intention); S: Significant

Figure 2: Consumer Attitude*Brand Engagement
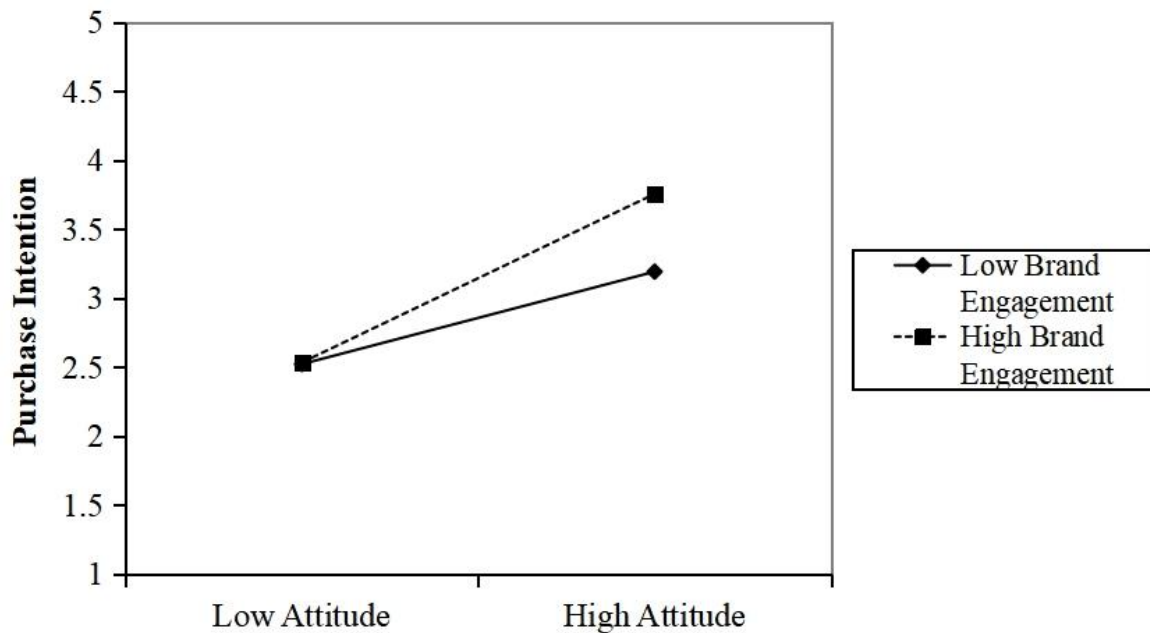
DISCUSSIONS

This research was conducted based on a conceptual framework linking eight variables (i.e., celebrity endorsement, source credibility model, source attractiveness model, product celebrity match-up model, meaning transfer model, consumer attitude, brand engagement, and purchase intention). Based on the results obtained from the analysis, celebrity endorsement by SMIs does not lead to consumers' purchase intention. The respondents might perceive a celebrity who endorses multiple products as just doing it for monetary gain without believing in the benefits of the product or brand. When an SMI endorses only one brand exclusively, their persuasiveness about the product will be stronger, whereas endorsing numerous products reduces their effectiveness. Nevertheless, celebrity endorsements are able

to stimulate a positive attitude among consumers because the former have the strong power to grab and direct consumers' attention towards the product. As such, consumer attitude has a mediating effect between celebrity endorsement and purchase intention.

The source credibility model was found to have an insignificant relationship with purchase intention. The two main dimensions used to measure the source credibility model were expertise and trustworthiness. In this research, respondents may have viewed that SMIs have no credibility or expertise to talk about the products they endorse, as they lack a proper understanding and knowledge of the products. In fact, Evans and Riley (2013) found that celebrities who endorse products and services that are outside their field of expertise can indirectly hurt consumers' perceived image, which results in negative purchase intention. It is equally difficult for the consumer to exert a positive attitude towards the credibility of an SMI when the message transferred by the celebrity is beyond their professional field. Therefore, there is also no mediating effect of consumer attitude between source credibility and purchase intention.

In this research, source attractiveness showed no impact on consumers' purchase intention. This result is in line with that of Ohanian (1991), who also found that a celebrity's attractiveness has no impact on a consumer's purchase intention. Till and Busler (1998) likewise pointed out that a celebrity's attractiveness is not the most powerful dimension for generating purchase behavior because of the weak logical link between an attractive endorser and purchasing intention. Although the attractiveness of an SMI can capture consumers' attention, it is still too weak to stimulate a positive attitude or purchase intention. Thus, there is no mediating effect of consumer attitude between source attractiveness and purchase intention.

The product celebrity match-up model was found to be significant in influencing consumers' purchase intention. The match between a celebrity and a brand depends on the degree of perceived fit between the brand and the celebrity's image. Notably, advertising a product via an SMI who has a relatively high product-congruent image leads to greater persuasiveness relative to an advertisement with a less congruent spokesperson. In celebrity endorsements, the perceived image of any celebrity endorser generated by the consumer will directly be transferred to the endorsed brand (Atkin & Block, 1983). Product and celebrity partnership is thus the most important factor for developing good feedback because consumers take it as proof that the product is truthfully used or consumed by the celebrity. Therefore, there is also a mediating effect of consumer attitude between the product celebrity match-up model and consumers' purchase intention.

The research findings also suggest that there is a positive correlation between the meaning transfer model and consumers' purchase intention. It can be said that consumers connect the symbolism associated with an SMI and the brands he/she endorses, transferring these meanings from the brand to themselves by actively using those brands (Escalas & Bettman, 2005). In other words, consumers are more likely to accept meanings from the brands endorsed by an SMI whom they perceive to be like themselves or whom they aspire to be like. The perfect link between an SMI and the consumer would therefore boost positive responses from consumers. On the other hand, celebrity spokespersons are useful in marketing because they provide a set of characteristics that supports consumers' evaluation of the presented brand (Martin & Bush, 2000). As such, companies must select SMIs who gain the appropriate response from consumers, especially with high engagement. Therefore, there is a mediating

effect of consumer attitude between the meaning transfer model and consumers' purchase intention.

Based on the findings, consumer attitude has a positive correlation with purchase intention, which corroborates the findings of previous research. For example, Jain (2011) suggested that celebrities in advertising positively affect consumers' brand attitude and purchase intention. Celebrity endorsement improves consumers' perceived quality of an advertisement, resulting in a favorable attitude towards the product and indirectly, higher purchase intention. In fact, Xu (2008) deemed that celebrity endorsers can help boost the effectiveness of advertising and are most impactful in influencing consumer attitudes because they are respected by and highly identifiable to young adults. Therefore, young adults are more readily persuaded by SMI endorsement, possibly because they are still at an impressionable stage of development. In sum, endorsement by an SMI can have a meaningful and impactful influence on young adults' attitude towards advertisements and consequently, their purchase intention.

Brand engagement was found to have a moderating effect between consumers' attitude and purchase intention in this research. This result indicates that with regard to the increasingly important role of brands in marketing, brand engagement is one of the novel subjects in the field that has widely attracted marketers' attention today. In general, brand engagement refers to a consumer's psychological state that occurs in interactive, co-creative experiences with a focal brand (Brodie et al., 2011; Cheah et al., 2020). Many previous studies have highlighted brand engagement as one of the potential contributors to customer loyalty (Bowden, 2009). Hence, establishing brand engagement is an important key to create an emotional connection with customers. Another key element of engagement is that it is a "momentary state" (Brodie et al., 2011). Engagement levels at the beginning are typically low; however, they develop and increase over time when the individual interacts with the brand frequently. In conclusion, the results provide preliminary evidence that brand engagement has a moderating influence between consumers' attitude and purchase intention. This is a novel contribution that opens an interesting avenue for future study.

THEORETICAL IMPLICATIONS

This study applied the SLT to understand the impact of SMIs on consumers' purchase intention. Effective SMIs were found to positively impact consumers' purchase intention, which upholds the SLT's proposition that behavior is learned from the environment through the observational learning process (Bandura, 1963). The five SMI variables influencing purchase intention under this theory are celebrity endorsement, source credibility model, source attractiveness model, product celebrity match-up model, and meaning transfer model. The results of this research further validate the mediating effect of consumer attitude between the effectiveness of SMIs (i.e., celebrity endorsement, product match-up model, and meaning transfer model) and purchase intention.

Furthermore, this research contributes to the SMIs context by introducing brand engagement as a moderator in the conceptual framework. The positive result obtained in this research indicates that brand engagement can evolve to be an important concept in the marketing literature. Specifically, this research provides strong empirical evidence of the importance of brand engagement as a moderator between consumer attitude and purchase intention in the context of SMIs.

MANAGERIAL IMPLICATIONS

From a managerial perspective, the research outcomes offer practically important results for marketers to consider in choosing an SMI for an advertisement. First, the positive correlation between the product celebrity match-up model and purchase intention indicates that marketers should pay attention to the perceived "fit" between the endorsing celebrity and the endorsed brand for an advertisement to be effective (Till & Busler, 2000). Marketers should ensure a good match between the SMI and product features so they complement each other to achieve effective advertising. The perfect match-up between the celebrity and the endorsed brand is important to attract the targeted audience and make the advertising message more impactful.

Second, the meaning transfer model has a positive correlation with purchase intention, suggesting that when consumers connect the symbolism associated with the celebrity and the brands they endorse, they will transfer these meanings from the brand to themselves by actively using those brands. Therefore, marketers need to be alert that SMIs exemplify various meanings which are passed on to products through endorsements.

Third, consumer attitude has the highest effect size on purchase intention. This calls for marketers to focus on attitude by choosing suitable SMIs to increase consumer attitude as well as purchase intention.

Lastly, brand engagement strengthens the relationship between consumer attitude and purchase intention; therefore, it should be considered part of the SMI marketing strategy. This research recommends marketers to prompt managerial awareness of specific marketing strategies to target customers and enhance brand engagement. A high level of brand engagement is one of the factors to increase a positive consumer attitude and purchase intention. Therefore, marketers should be aware that appropriate levels and specific forms of customer stimulation and activities are expected to favorably impact the underlying mechanisms contributing to purchase intention and consumer attitude.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

The main purpose of this research was to examine the effectiveness of SMIs for consumers' purchase intention, moderated by brand engagement. SMIs have changed the way of advertising; today, SMI endorsements have become a multi-million-dollar industry. As a result, a greater understanding of consumers' reactions to SMIs can help marketers use them more effectively. However, advertisers need to bear in mind that SMIs cannot be selected on the basis of one attribute only; other influential attributes of SMIs must be considered simultaneously to collectively strengthen the positive impact of SMIs on consumers' purchase intentions.

Without exception, every study has limitations. Our results should therefore be interpreted with some caution. First and foremost, the sample used for this research should be based on a larger sample size to produce more broad-spectrum results. The reason is that larger sample sizes can result in clearer effects of SMI endorsement on consumers' purchase intention. Due to time and financial constraints, this deficiency could not be overcome and the researcher was only able to collect 200 samples. The second limitation of the current research is that the respondents were primarily young students still pursuing their studies and lacking proper

income. Therefore, this group may not be a good predictor of purchasing power. The selection of this non-representative sample could have impacted our findings, as most celebrity-endorsed products are rather expensive. Third, most of the respondents answered the questionnaire based on their experience of purchasing celebrity-endorsed products. Hence, their positive or negative prior purchasing experiences (rather than the SMI attributes) could have influenced their attitudes and purchase intentions, which may lead to a high probability of bias in the responses.

To improve the work, some suggestions are provided for future studies should attempt to enlarge the sample size to a broader population and thereby generate better insights on SMIs that are more generalizable. Second, future research should look at data from participants in all adult age ranges. This is because most people in older age groups have a stable income, which implies higher purchasing power. Third, it would be interesting and useful to use a fictitious brand or SMI to add to internal validity of future research. Using a fictitious brand or SMI can eliminate the potential bias arising from earlier positive or negative experiences that influence respondents' attitude. Finally, communication can be added as a second moderator in the conceptual framework. Communication is the first interaction between companies and consumers in the value creation process. This involves the process of sharing information between both parties to balance their desired values and co-create a solution. Marketers need to take the time to engage in genuine and real-time dialogue with customers to promote products. Promotion content is most ideal when it resonates with the target audience while concurrently expanding the rate of reach.

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Appendix 1. Measurement Items

No.	Items	Source
Celebrity Endorsement		
1)	Does the presence of social media influencers in the advertisements help you recognize and recall product more promptly?	(Kumar, 2010)
2)	Social media influencers endorsement makes the brand become more favourable.	
3)	Social media influencers endorsement is able to grab my attention more easily.	
4)	Social media influencers endorsement is able to arouse my interest towards the advertisement.	
Source Credibility Model		
Expertise		
1)	The knowledge of social media influencers can influence my purchase intention.	(Yi, 2012)
2)	The experience of social media influencers can influence my purchase intention.	
3)	Qualified social media influencers can influence my purchase intention.	
Trustworthiness		
1)	Honesty of social media influencers can influence my purchase intention.	(Yi, 2012)
2)	Believability of social media influencers can influence my purchase intention.	
3)	Dependable social media influencers can trigger my purchase intention.	
Overall, how did you think about the credibility model of the social media influencers?		
Source Attractiveness Model		
1)	Highly attractive social media influencers can trigger my purchase to their endorsed products.	(Yi, 2012)
2)	Classy social media influencers can trigger my purchase to their endorsed products	
3)	Elegant social media influencers can trigger my purchase to their endorsed products.	
4)	The similarity between the social media influencers can trigger my purchase intention.	
5)	Familiarity with social media influencers can influence my purchase decision for a certain product.	
6)	Likeability of the social media influencers can trigger my purchase intention.	
Celebrity Product Match Up		
1)	I believe that those social media influencers consume those products endorsed.	Chiu et al. (2009)
2)	I think the characteristic of social media influencers who endorse the product will directly relate to the product image.	
3)	I think those social media influencers in the advertisement are the best fit for the brand image.	
4)	I believe the use of social media influencers is a guarantee for the quality of the product.	
Meaning Transfer Model		
1)	The meanings attributed by the social media influencers will influence my purchase intention	(Rangsima, 2013)
2)	I believe that there is a consistent transfer between the social media influencers and the product endorse.	
3)	The attribute of the social media influencers will influence the image of the product endorse.	
Attitude towards purchase intention		
1)	I believe that using social media influencers in a brand able to reach the customers.	(Rangsima, 2013)
2)	I think using social media influencers is help me to know the product	
3)	I believe that using social media influencers able to persuade me to try the product.	

4)	social media influencers advertisement is more convincing me to buy a product than an ad without endorsement.	
5)	The advertisement deliver by social media influencers is more promising and trigger my purchase intention.	
Brand Engagement		
1)	I normally will purchase a product that I prefer more compared to others.	(Sprott et al., 2009)
2)	My favourite brands are an important indication for my purchase intention.	
3)	I can identify with important brands in my life when considering my purchase intention.	
4)	I can identify with important brands in my life when considering my purchase intention.	
Purchase Intention		
1)	I am likely to purchase products or services that have been endorsed by social media influencers.	(Kumar, 2010)
2)	Social media influencers increase the worth of value for products endorse.	
3)	There is a high probability I would purchase the product after watching the advertisement endorse by social media influencers.	