

# Investigating Triggers on the Skincare Purchase Behavior among Thai Millennials: An Empirical under Digital Media Usage

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## Abstract

Digital media accelerates the transformation of customers' behavior and the spending on products such as cars, skincare, banks, FMCGs, etc. in the digital media in Thailand is greatly increasing. Interestingly, spending on digital media of skincare industry increase exponentially in past years, however, their explanation related to behavioral science and strategic marketing is still lacking. To obtain the missing gap and explanation of customers' behavior in buying skincare products, the study applied Theory of Planned Behavior (TPB). Therefore, this study focuses on conceptual model of factors affecting consumers' purchase intention and behavior of skincare products under digital media context by applying the theory of planned behavior and suggestion on strategic decision. The samples are millennial customers in Thailand, aged range from 20 to 40 years old, whose strong purchasing power and digital media usage group. Questionnaires were distributed to 400 respondents. Structural equation modeling (SEM) was applied as a research tool. The result explained influence of attitude towards digital media usage, influence of subjective norms, and perceived digital media usage on purchase intention and behavior. The results of the study help marketers to understand the consumer behavioral concept by revealing its key antecedents. The study would further suggest skincare brand owners, marketers, and market implementers on suitable practices to secure the repurchase by customers.

**Keywords :** Digital Media, Skincare, Behavior, Millennial Consumers

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## 1. Introduction

Technological development leads marketing activities to depend less on traditional media and depends more on digital marketing activities (Tanyel, Stuart & Griffin, 2013). Most businesses have turned their attention to social media, particularly blogs, where consumers spend increasing amounts of time to reach large audiences efficiently (Liljander, Gummerus & Söderlund, 2015). Interestingly, the report by the Digital Advertising Association of Thailand showed that the budget used by the skincare industry in the digital marketing activities via digital media had risen (Digital Advertising Association of Thailand, 2019). The tremendous by the skincare industry is mainly because of the disruption of press release and magazines which traditionally played the role as main media for skincare advertisements. Moreover, majority of target customers of skincare and grooming products are the Millennial i.e., people aged ranging from 20 to 40 years old, whose interest lays in online and digital media. Hence, computers and mobile devices are common tools for Millennials; even regarded as essential (Smith, 2012). The Millennial is the driving force in the growth of the skincare industry due to their purchasing ability (Seyler, 2017). This has underlined the situation that control over media used in communication and interactivity are handing over to the customers rather than the business themselves. Despite changes in marketing practice, meanwhile millennial customers also search for benchmarks on quality, price, warranty, satisfaction, and after-sales service from many different brands. This enables customers to become less loyal on any products or brands. Therefore, products communication with millennial customers via digital media is therefore considered to be the most effective channel at present (Okazaki, Katsukura & Nishiyama, 2007).

The past studies on Theory of Planned Behavior (TPB) for products such as eco-friendly, e-commerce, and online gaming, etc., have been revealed. Nevertheless, skincare as the second highest in industry spending on digital media (Digital Advertising Association of Thailand, 2019) has not yet been interrogated either purchase intention or purchase behavior aspects (Julintron, Yoelao & Saisombut, 2019). With an aim to analyze factors affecting millennial customers' purchase intention and behavior, the famous Theory of Planned Behavior by Ajzen (1991) was used to apply as the theoretical foundation. TPB is the theoretical study on behavioral science and usually applied as a tool to anticipate behavior. This study will, therefore, help to create an understanding and to suggest stakeholders, business owners of skincare brands, and marketing agencies to take decision and implement on the content and suitable digital media, for examples; blogs, social media, web site, and other shopping applications, etc. to match customers' demand for information and convince customer purchase and to increase competitiveness in the new digital environment and gain more reputation as well as profit. This empirical study which focuses on analyzing skincare purchase behavior under the context of digital media usage would provide insight for marketers and other scholars in terms of strategic decision and future study respectively.

## 2. Literature review

### 2.1 Theoretical Foundation

The behavior of a person was found to be affected by attitude, recommendations from friends, relatives and family, skills, capability, and resources (Fishbein & Ajzen, 1975; Ajzen, 1991). The impact of skincare purchase behavior of millennial customers under the context of digital media usage can be analyzed by Theory of Planned Behavior (TPB) as the theoretical foundation. TPB has been successfully used by several scholars such as Shih and Fang (2004), Lin (2007), Martin and Herrero (2012), Ogutu et al. (2014), Dahiya and Gayatri (2017a; 2017b), Athapaththu and Kulathunga (2018), and Cui et al. (2021) in many different sectors such as banking, online products and e-commerce, cars, tourism, and electric vehicles. The theory illustrated the impact of intention on behavior with the following antecedences, thus, 1) attitude towards behavior which is an assessment of an individual i.e., either positive or negative towards the outcome of a certain behavior, 2) subjective norm is any kind of influence by peer and reference group that an individual would value, and 3) perceived behavioral control is a cognitive process of an individual to continue or discontinue on certain behavior. Ajzen had concluded this theory with an explanation that when the three antecedents are positive, they would drive the intention of a person and eventually becomes behavior. However, when the intention is left to be just intention for lone time behavior of a person may not take place. To conclude, this theory is used to explain and anticipate behavior of a person in several situation and under different motives.

### 2.2 Related research

Attitude towards digital media usage is an acceptance of an individual to use digital media for activities such as communication, information seeking, reference, etc. (Dahiya & Gayatri, 2017a). With a view to capture positive attitude on information diffusion digital media could be one of the best alternatives. In the light of digital technology, marketing through digital media has always affected on every industry irrespective of its nature, size, type, and category (Dahiya & Gayatri, 2017b). Generally, there are many studies showed positive significance between attitude and digital media. The significant relationship was validated by Chowdhury, Parvin, Weitenberner and Becker (2006) about digital media usage and customers' attitudes on informativeness, credibility, irritation, and entertainment consisted with Cheng, Blankson, Wang and Chen (2009). In the similar contrast, the study by Alalwan (2018) also support the view on customers' attitude of digital advertising by demonstrated positive significant of interactivity on the usage of digital media.

Influence of Subjective norms refer to the perceived social pressure and expectations to perform or not to perform the behavior, also, the motivation to comply with these pressure and expectations (Fishbein & Ajzen, 1975; Laohapensang, 2009). Subjective norms were classified into friends, family, relatives, and social environment. The study by Ogutu et al. (2014) in Kenya stated the result an explanation thus, behavior performed by a customer is generally influenced by many social factors such as friends, peer and family as a person would try to gain opinion from other reference group before performing actual purchase behavior.

Evidently, there have been several more studies on influence of subjective norm to the customers in different countries. The evidence from relevant studies (Bai, Wang & Gong, 2019; Cui, Wang, Chen, Wen, & Han, 2021) displayed the result of social influence with significant on purchase motivation in China. Additionally, there were the demonstration on evidence of influence of subjective norm that affect usage intentions and actual usage of digital marketing communication in India and Portugal. (Dahiya & Gayatri, 2017a; Seyler, 2017).

Perceived digital media usage is perception of an individual about his ability to use technology and digital media (Hwang & Zhang, 2018) as well as his knowledge of digital communications during the decision-making process to gain insights information of the product before purchasing (Dahiya & Gayatri, 2017b). Ajzen (1991) explained that perceived control refers to the perceived ease or difficulty of performing the behavior and it is assumed to be reflected by experience as well as anticipated impediments and obstacles (Ajzen, 1991). Several studies (Taylor & Todd, 1995; Altawallbeh, Soon, Thaim & Alshourah, 2015; Dahiya & Gayatri, 2017a; 2017b) had distinguished the term perceived control into self-efficacy, resource facilitating conditions and technology facilitating conditions to emphasize the control ability according to the theory of planned behavior. Thereby, the digital media usage would facilitate ease of selection for the skincare products. In the light of review, Shin and Hancer (2016) had validated the influence of perceived control on purchase intention among the American customers under the advocate of self-efficacy which is consistent with Dahiya and Gayatri (2017a). Additionally, other research from Kenya, Malaysia, and Indonesia (Ogutu et al., 2014; Othman & Rahman, 2014; Utami, Bernardus & Sintha, G, 2017) also supported that there is a significant influence of perceived control on customers' purchase intention.

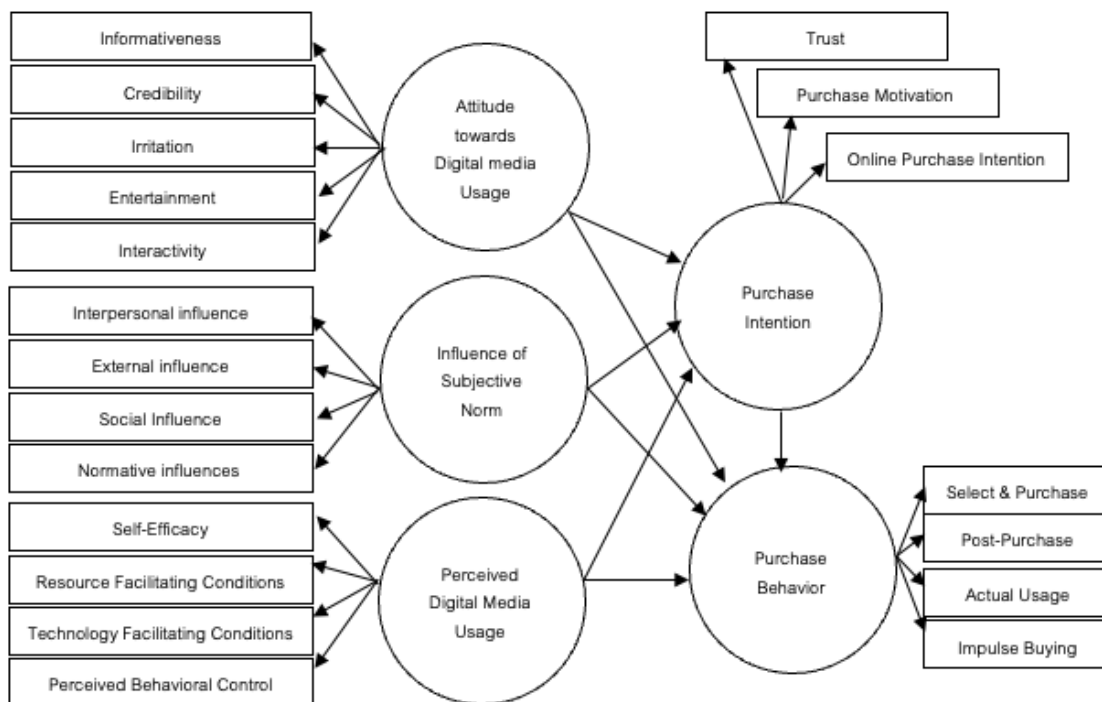
Purchase intention is the factor that indicates the feasibility of customers to purchase the product in the future Athapaththu and Kulathunga (2018). Purchase intention is frequently used as a construct to determine the success of purchase behavior and customers' consumption of products (Kytö, Virtanen & Mustonen, 2019). It is essential to understand the behavior of customers to anticipate purchase behavior. (Hsu, Chang & Yansritakul, 2017). In the light of understanding purchase behavior, purchase intention would be a factor to anticipate the occurring of behavior in the future which remarks that purchase behavior would follow purchase intention (Wu, Yeh & Hsiao 2011). There were many global studies presented in the past on purchase intention (Dahiya & Gayatri, 2017a; Alalwan, 2018, Qi & Ploeger, 2019; Cui et al., 2021) and the result from which were the validation of purchase intention that derived from customers trust in information, purchase motivation, credibility, and recommendation.

Hence, it is essential that the business sectors understand their customers' expectations, attitudes, and motivations. Many studies discussed about impact on customer intention, but the study on the actual purchase behavior of customers can hardly found. To fill the research gap about the missing study on purchase behavior, this study focusses on analyzing factors affecting millennial customers' purchase intention and behavior under the context of digital media usage in Thailand.

### 2.3 The research framework

Referring to the literature review from past studies, there have been suggestions from many studies that Theory of planned behavior has been successful in explaining purchase behavior in the digital media environment. The construct of the framework, thus, attitude towards digital media usage, influence of subjective norm and perceived digital media usage affect purchase intention which in turn affect purchase behavior. Hence, the research framework could be constructed as follow.

Figure 1 Research Framework



Source: Adopted from Ajzen (2006).

Figure 1 is representing research framework of the study synthesized from the literature review. Objective of the study is to analyzing factors affecting millennial customers’ purchase intention and behavior under the context of digital media usage in Thailand. Therefore, hypothesis of the research could be considered as follows.

- H1: Attitude towards Digital media Usage has positive influence on Purchase Intention
- H2: Attitude towards Digital media Usage has positive influence on Purchase Behavior
- H3: Influence of Subjective Norm has positive influence on Purchase Intention
- H4: Influence of Subjective Norm has positive influence on Purchase Behavior
- H5: Perceived Digital Media Usage has positive influence on Purchase Intention

H6: Perceived Digital Media Usage has positive influence on Purchase Behavior

H7: Purchase Intention has positive influence on Purchase Behavior

### 3. Research methodology

#### 3.1 Population and sample

The population selected in the study is millennial customers, whose ages ranged between 20 to 40 years old, who are normally skincare users. Samples size is 400 respondents who live in Bangkok, Khon Kaen, Chiang Mai, and Songkhla. The reason of provincial selection being the said provinces are the area where Bank of Thailand branches is in operation.

#### 3.2 Sampling design

Samples calculation was done by referring to statisticians' advice that the number of samples should be in the range of 15 to 20 times of observed variables (Hair, Black, Babin & Anderson, 2010). Since there are 20 observed variables as indicated in Figure 1, therefore, 20 times of observed variables are 400. Thus, the number of samples in this study is 400. Sample size selection was done according to proportional allocation due to differences in the size of sample in each region of Thailand as well as difference size in age range (Yamkong, 2012).

Table 1 Sampling design table

Age (year-old)	Total population	Number of samples	Percent	Age (year-old)	Total population	Number of samples	Percent
20	835,691	17	4.19	31	885,438	18	4.44
21	886,222	18	4.45	32	882,196	18	4.43
22	963,154	19	4.83	33	912,297	18	4.58
23	980,641	20	4.92	34	947,809	19	4.75
24	971,608	19	4.87	35	953,424	19	4.78
25	939,432	19	4.71	36	976,530	20	4.90
26	946,715	19	4.75	37	1,011,138	20	5.07
27	961,808	19	4.82	38	1,011,344	20	5.07
28	955,530	19	4.79	39	1,032,474	21	5.18
29	943,285	19	4.73	40	1,034,788	21	5.19
30	904,610	18	4.54				
<b>Total Population</b>		<b>19,936,134</b>		<b>Sample size</b>		<b>400</b>	<b>100 %</b>

Source: National Statistical Office (2020)

### 3.3 Questionnaire development and scale measurement

Quantitative research was conducted upon primary data. The research instrument used in the study was survey distribution and the questions addressed in this study concerned identifying factors influencing purchase intention and behavior under the context of digital media. Questions interrogated in the questionnaires were constructed from the research theory and related research using 5 points Likert's Scale (Likert, 1932). To confirm the validity of questionnaire, the Index of Item Objective Congruence (IOC) was verified by 5 experts from statistic and marketing fields and the IOC value is at 0.96 which is acceptable.

### 3.4 Data Collection

Quantitative research was conducted upon primary data. Data collection was done by stratified random sampling. Due to the pandemic of the COVID-19, data collection had to be done online. Therefore, online surveys were distributed among target population during May to July 2021.

## 4. Result

This descriptive study employed data from the survey of 400 millennial consumers, whose aged ranging from 20 to 40 years old, in Thailand. Number of female participants was 255 (63.8 percent) and 145 male participants (36.2 percent), female participants were outnumbered. The majority were the age group of 20 – 25 (28 percent) while the smallest group were age group of 31 – 35 (23 percent). Education wise, most of the targeted respondents had a good educational level; 34.80 percent had a master's degree, 32 percent had a bachelor's degree, 30.70 percent had higher than masters' degree and about 2.50 percent had undergraduates' degree. Most of respondents use digital media through smartphones (97 percent) and computer or computer notebook (3 percent). Digital media consumed by respondents were Facebook (40.25 percent), Personal Blog/Beauty Blog (21.25 percent), YouTube (14.75 percent), Instagram (10.25 percent) and Twitter (5.25 percent). Respondents consume information about products ingredients (65.25 percent), sales promotion (13 percent), distribution channel (12 percent), product properties (8.25 percent), and price information (1.50 percent), respectively.

Table 2 Descriptive result

Variables Construct	Mean	S.D.	Cronbach's alpha
Attitude towards Digital media Usage (ATTI)	3.84	0.86	0.85
Informativeness (INFO)	4.43	0.71	0.73
Credibility (CRE)	3.96	0.75	0.77
Irritation (IRR)	2.90	1.12	0.91
Entertainment (ENT)	3.73	0.93	0.89
Interactivity (INTE)	4.16	0.81	0.84

**Table 2** Descriptive result (Cont.)

Variables Construct	Mean	S.D.	Cronbach's alpha
<b>Influence of Subjective Norm (SUBNORM)</b>	<b>3.68</b>	<b>1.07</b>	<b>0.91</b>
Interpersonal influence (ININ)	3.39	1.28	0.91
External influence (EXIN)	3.72	1.07	0.72
Social Influence (SOIN)	3.74	0.97	0.89
Normative influences (NORIN)	3.85	0.96	0.88
<b>Perceived Digital Media Usage (PDUSE)</b>	<b>4.69</b>	<b>0.61</b>	<b>0.88</b>
Self-Efficacy (SELF)	4.81	0.46	0.68
Resource Facilitating Conditions (RECON)	4.49	0.85	0.75
Technology Facilitating Conditions (TECON)	4.68	0.63	0.92
Perceived Behavioral Control (PECON)	4.78	0.48	0.94
<b>Purchase Intention (INTEN)</b>	<b>4.03</b>	<b>0.91</b>	<b>0.94</b>
Trust (TRU)	3.90	0.89	0.92
Purchase Motivation (PUMO)	4.04	0.91	0.86
Online purchase intention (ONPIN)	4.15	0.93	0.91
<b>Purchase Behavior (BEHAVE)</b>	<b>3.80</b>	<b>1.03</b>	<b>0.85</b>
Selection and Purchase (SEPU)	4.31	0.80	0.88
Post Purchase (POST)	3.86	1.10	0.83
Actual Usage (ACTU)	4.07	0.93	0.74
Impulse Buying (IMBUY)	2.94	1.27	0.86
KMO = 0.806, Bartlett's test of sphericity = 4504.268			

Table 2 represents descriptive result of data validation before applying structural equation model analysis. The average value of the observed variables was at moderate to high value (2.90 – 4.78) and the standard deviation were 0.61 – 1.07. Cronbach's alpha was valued between 0.68 – 0.94 and the value is acceptable. The measurement model was applied by using confirmatory factor analysis (CFA) which also established reliability and validity of the scale. Kaiser-Meyen-Olkin (KMO) measure representing sample adequacy (value = 0.806, sig at 0.01 level) and Bartlett's test of sphericity (value = 4504.268, sig at 0.01 level) were conducted to ensure the suitability of confirmatory factor analysis (Hair et al., 2010). Content validity was established by phrasing scale items from Dahiya and Gayatri (2017) and pre-testing the questionnaire with 30 samples trial. Construct reliability was checked by Cronbach's alpha (total value = 0.96, acceptable > 0.7) to indicate internal consistency in the scale (Nunnally & Bernstein, 1994).



**Table 3** Data analysis model measurement.

Fit Indices	Cut-off Point	Initial Measurement	Modification Measurement
$\chi^2 / df$	< 2.00	2.03	0.82
CFI	$\geq 0.95$	0.93	1.00
GFI	$\geq 0.95$	0.92	0.97
AGFI	$\geq 0.90$	0.91	0.96
RMSEA	< 0.05	0.04	0.04
SRMR	< 0.05	0.04	0.00

Table 3 indicated the result of interpretation of model-fit criteria. Relative chi-square ( $\chi^2 / df$ ) value = 0.82 which is acceptable and indicated model-fit. Comparative Fit Index (CFI) value = 1.00 which is acceptable and indicated model-fit. Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) were scrutinized for the value of Absolute Fit Index. The result indicated GFI = 0.97 and AGFI = 0.96 which is acceptable and represent model-fit. Value of Root Mean Square Error of Approximation (RMSEA) is 0.00 which is acceptable since the model is consistent with the empirical data. Value of Standardized Root Mean Square Residual (SRMR) is 0.04 which is acceptable. After verifying the harmonious index values, it could be remarked that model was harmonious with the empirical data across all accepted criteria. Therefore, the conclusion for a structural equation model is inferred a good fit of model.

**Table 4** The result of factors influencing Millennial consumers' Purchase Intention and Purchase Behavior

Variables	ATTI		SUBNORM		PDUSE		INTEN	
	DE	IE	DE	IE	DE	IE	DE	IE
INTEN	0.59**	-	0.16**	-	0.15**	-	-	-
	(0.31)	-	(0.27)	-	(0.11)	-	-	-
	1.91	-	0.60	-	1.44	-	-	-
BEHAVE	-	0.47**	-	0.13**	-	0.12**	0.81**	-
	-	(0.31)	-	(0.22)	-	(0.09)	(0.29)	-
	-	1.55	-	0.60	-	1.32	2.83	-

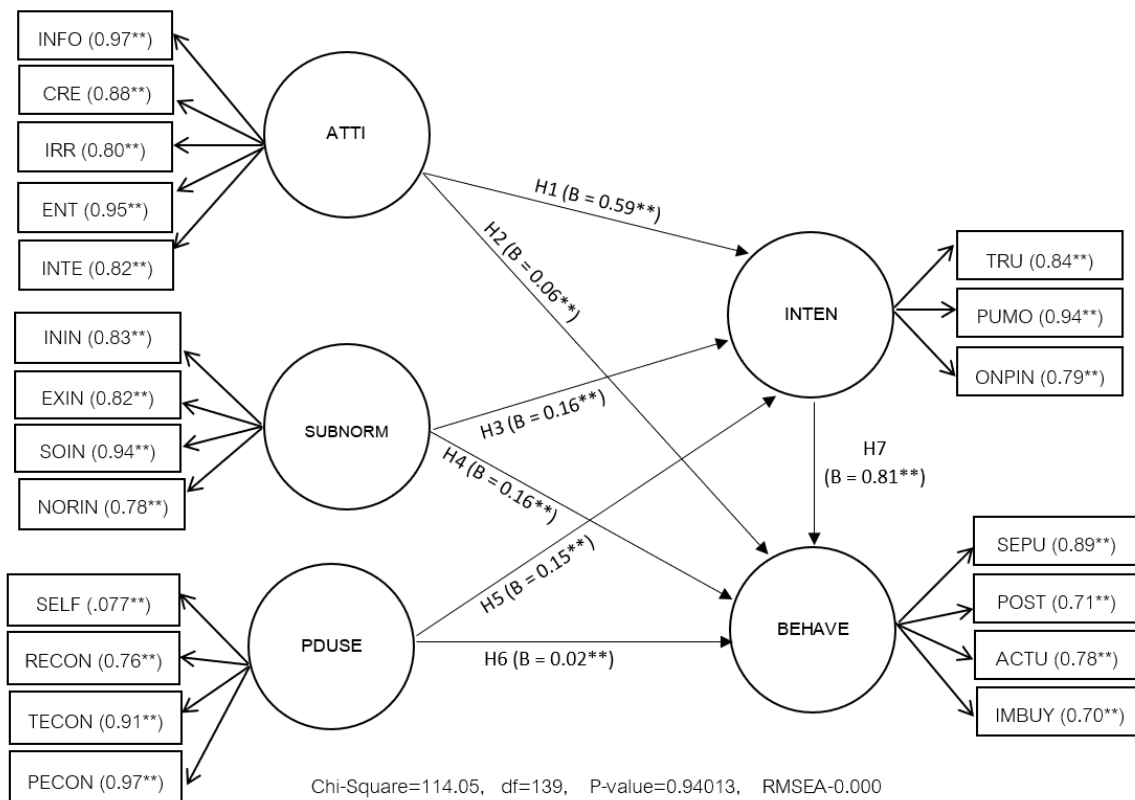
$\chi^2 = 114.05$ ,  $df = 139$ ,  $p = 0.94013$ , CFI = 1.00, GFI = 0.97, AGFI = 0.96, RMR = 0.039, RMSEA = 0.04

Note: \*\*  $p < 0.01$

Table 4 indicates analysis of factors influencing millennial consumers' Purchase Intention and Purchase Behavior from the empirical data. The effect demonstrated direct effect and indirect effect at 0.1 significance; thus, ATTI has positive direct effect on INTEN at 0.59, SUBNORM has positive direct effect on INTEN at 0.16, PDUSE has positive direct effect on INTEN at 0.15 and INTEN has positive direct effect on BEHAVE at 0.81. ATTI has positive indirect effect on BEHAVE at 0.47, SUBNORM has positive indirect effect

on BEHAVE at 0.13 and PDUSE has positive indirect effect on BEHAVE at 0.12. The result also indicated that chi-square ( $\chi^2$ ) = 114.05, degree of freedom (df) = 139, p value = 0.94013, CFI = 1.00, GFI = 0.97, AGFI = 0.96, RMR = 0.39 and RMSEA = 0.04 with statistical significance.

Figure 2 Validation of the Conceptual framework



Note: \*\* p<0.01

As seen in figure 2, attitude towards digital media usage (ATTI) is the most significant construct variable in predicting purchase intention (INTEN) at 0.59. This implies that if a millennial customer possesses positive attitude towards digital media usage (ATTI), they will build up purchase intention (INTEN). In fact, customers are more interested in entertainment (ENT) in using digital media rather than aiming for information (INFO) and two ways communication as usual. Credibility (CRE), however, is still important to form positive attitude towards using digital media. Whereas irritation (IRR) would cause circumstances in reducing positive attitude. In other words, relation between irritation (IRR) and attitude towards digital media usage (ATTI) is in an opposite direction. Consequently, from the figure above Purchase Intention (INTEN) strongly affects Purchase Behavior (BEHAVE).

The influence of subjective norms (SUBNORM) on purchase intention (INTEN) and purchase behavior (BEHAVE) are at the same level at 0.16. The most significant determinant is social influence (SOIN) as millennial customers are usually based their advice on social media (Dahiya & Gayatri, 2017a). Customers who find social media as a beneficial in gathering information and support on using digital media are more

likely to have positive subjective norm. Additionally, normative influence (NORIN) such as friends and colleges are the factors that persuade a person to build up positive influence of subjective norms (SUBNORM). Customers look for external information as advice, information distributed from digital media is one of the external influences (EXIN) on the customers (Dahiya & Gayatri, 2017). On the one hand, interpersonal influence (ININ) is the least factor that would affect positive influence of subjective norm (SUBNORM) of a customers.

Perceived digital media usage (PDUSE) was measured by resource facilitating condition which has strongest factor loading at 0.62 and self-efficacy (SELF) (0.41), perceived behavioral control (PECON) (0.39), and technology facilitating condition (TECON) (0.1) respectively. The influence of Perceived digital media usage (PDUSE) on purchase intention (INTEN) is at 0.15, whereas the influence on purchase behavior (BEHAVE) has lightly affected (0.02).

The purchase intention (INTEN) was seen to have strong influence on purchase behavior (BEHAVE) with direct effect (DI) at 0.81. The sequence of sequence of observed variables measurement are purchase motivation (PUMO) with strongest loading factor at 0.66, online purchase intention (ONPIN) (0.60) and trust (TRU) (0.52) respectively. To be reasonable, millennial customers who have strong urge of purchase intention would be willing to buy and consume the products. Moreover, they would evaluate the experience after using product and advise their perception among other customers. According to the current study it was noticeable that millennial customer would consider digital media usage as medium of information and resources and likewise they also contribute to the digital media after their product consumption. We can conclude to the hypothesis, thus.

H1: Attitude towards Digital media Usage has positive influence on Purchase Intention	accepted
H2: Attitude towards Digital media Usage has positive influence on Purchase Behavior	accepted
H3: Influence of Subjective Norm has positive influence on Purchase Intention	accepted
H4: Influence of Subjective Norm has positive influence on Purchase Behavior	accepted
H5: Perceived Digital Media Usage has positive influence on Purchase Intention	accepted
H6: Perceived Digital Media Usage has positive influence on Purchase Behavior	accepted
H7: Purchase Intention has positive influence on Purchase Behavior	accepted

## 5. Conclusion and Discussion

The focus of this study is to analyze factors affecting millennial customers' purchase intention and behavior by adopting Theory of Planned Behavior under the context of digital media usage in Thailand. A survey was conducted to evaluate the variables construct and data were analyzed by using Structural Equation Modelling (SEM). The empirical study revealed that the moderating affect that influence purchase intention is attitude towards digital media usage (ATTI) with a direct effect at 0.59. Influence of subjective norms (SUBNORM) and perceived digital media usage (PDUSE) have slight direct effect on purchase intention at 0.16 and 0.15, respectively. Purchase intention (INTEN) affected purchase behavior directly at

0.81. This study should be stated that there is no statistically significant of the model construct with chi-square = 144.05, df = 139, p-value = 0.94 (significance at  $p < 0.01$ ), however, the empirical study indicated that the model was fit. Based on the solidity of Theory of Planned Behavior, three factors; attitude towards digital media usage, influence of subjective norms and perceived digital media usage had direct and significant effect on purchase intention, and purchase intention had direct and significant effect on purchase behavior (Ajzen, 1991). In this study, the attitude towards digital media usage had manifested strongest influence on purchase intention. The finding is consistent with past studies in India and Kenya (Ogutu et al., 2014; Dahiya & Gayatri, 2017a; 2017b).

Result of the study indicates the era of information exchange and communication, owing to the development of information technology, digital media has become one of the triggering factors to customers' purchase intention and behavior for the skincare products. The conceptual study hypothesized that digital media context plays important role in the construct of variables under the application of Theory of Planned Behavior. The construct variables: attitude towards digital media, influence of subjective norm, perceive digital media usage, has been regarded as factors influencing on millennial customers' purchase intention and behavior under the context of digital media usage in Thailand. Attitude towards digital media was found to have maximum direct effect on customer's purchase intention which tallied with the study from Bangladesh, Taiwan, and China by Chowdhury et al. (2006), Cheng et al. (2009) and Cui et al. (2021). Meanwhile, the result from Dahiya and Gayatri (2017b) had also mentioned the influence of attitude towards digital communication. However, the result on maximum influence of attitude was contradicted with Laohapensang (2009) that revealed the minimum influence on customers' purchase intention. Influence of subjective norm and perceive digital media usage were second and third factors respectively in influencing purchase intention, the outcome of this study was supported by shin and Hancer (2016) and Allalwan (2018). Additionally, the findings of the result have informed us that the more positive the participant attitudes toward digital media usage and the more that participants perceived social pressure, the stronger was their purchase intention and this is also supported by Ogutu et al. (2014). The empirical result on purchase behavior indicated the outcome that purchase behavior is tallied with purchase intention. To conclude, when there is an increase in purchase intention of customers, tendency of purchase behavior will be stronger in a unidirectional. The result is in league with Cannière et al. (2010), Dahiya and Gayatri (2017b) and Kytö et al. (2019).

## 6. Implication of the study

The findings of this study can validate academic implication. While skincare industry is suffering from technological disruption in traditional media, not many studies had really focus to evaluate digital media as a new option for skincare market. This study can contribute to the literature of other research study in identifying attitude, influence of subjective norms, and perceived digital media usage that effect purchase intention and behavior of the millennial customers while using digital media in receiving information on skincare buying. Conclusion of the study can be explained, thus, entertainment, interactivity, credibility, social

influence, normative influence, external influence, resource facilitating condition, and self-efficacy are the outstanding antecedent of millennial customers' purchase intention under the digital media usage context. Moreover, while purchase intention affected by the said antecedents and growing more positively, eventually it effects purchase behavior in terms of product selection, impulse buying tendency, and post-purchase behavior. These findings can add significance to the review on marketing literature for the skincare market and other relevant markets. The uniqueness of this study is the consideration of customers' purchase behavior rather than illustrate purchase intention alone. Therefore, adding more depth to the extension of digital marketing and media literature.

Additionally, the result of this study can be the invigorator of product promotion via digital media. With fear of missing out (FOMO) trend and information (Kotler et al., 2021) millennial customers need a lot of interaction and information while taking decision and buying skincare products, meanwhile they also like to interact to provide their feedback to peer and sellers. The result of this study along with insight of the millennial customers imply that marketer must understand that customers will expect to use digital media when they are certain that the use of the digital media will result in favorable outcomes in terms of fetching product information, possible promotion, time reduction, and easy selection of suitable skincare. Therefore, to drive customers' purchase behavior marketer should raise positive attitude by providing concrete information of the product and provide possible outcome of skincare consumption via digital media. Nevertheless, marketer should practice social listening strategy to make customers feel that they are being heard and getting attention. These practices would preserve customer purchase behavior among millennial customers.

## 7. Limitations and future research directions

limitations of this study are mainly pointed at the sample of the study. The selection of the sample is focusing on a group of people, i.e., millennial customers where there are many more segments of customers group in the skincare market. The suggestion for further study could be selecting a larger variety of segmentation of customer groups so to make the result of the study more solid. Moreover, the study of purchase intention should be substantially explained as purchase intention could be referred to in several dimensions rather than one dimension as explained above.

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**Appendix : Questionnaire**

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**Attitude towards Digital Media (Chowdhury et al., 2006; Alalwan, 2018)**

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Informativeness	Digital media is a good source of information and supplies relevant product information. Digital media provides timely information. Digital media provides up-to-date product information.
Credibility	I use digital media as a reference source for purchasing skincare products. I feel that I can trust skincare product recommended through digital media. I am impressed by the information provided by the digital media.
Irritation	I find the heap amount of information about skincare products received from digital media is annoying. I feel uncomfortable using digital media that offers more information about skincare products than necessary. The content of skincare products appearing on digital media are often annoying.
Entertainment	I feel that receiving content of skincare products from digital media is interesting. I feel that receiving content of skincare products from digital media is exciting. I feel that receiving content of skincare products from digital media is pleasing.
Interactivity	Digital media is effective in gathering customers' feedback. Digital media is the quickest medium where seller can collect customers' opinion. Digital media encourages customers to offer feedback. Digital media offers the opportunity for customer to share their view. Digital media facilitates two-way communication.

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Influence of Subjective norm (Lin, 2007; Cui et al., 2021; Shih & Fang, 2004)	
Interpersonal influence	My family suggested that I should refer to the digital media while buying skincare products. My friends suggested that I should refer to the digital media while buying skincare products. My colleague suggested that I should refer to the digital media while buying skincare products.
External influence	Digital mass media reports have influenced me to try purchasing skincare products. Famous influencer suggested me to try purchasing skincare products. The popular research and academic press adopt a positive view towards purchasing skincare products.
Social Influence	Accreditation from healthcare professionals give me a sense of trust. Accreditation from beauty institutions give me a sense of trust. Receiving accreditation from popular digital media makes me feel as a part of the society.
Normative influences	Suggestions from digital media about skincare product is important to me. Suggestions from professional beauty institutions via digital media is important to me. Suggestions from other customers via digital media is Important to me. I usually refer to the suggestion from professional beauty institutions about skincare products. I usually refer to the suggestion from other customers about skincare products.
Perceived Digital Media Usage (Dahiya & Gayatri, 2017b)	
Self-Efficacy	I think I am comfortable with using digital media while buying skincare products. I can use the digital media on my own buying skincare products.
Resource	I tend to use digital media due to its low cost.
Facilitating Conditions	I appreciate the time saved by using digital media while buying skincare products.
Technology Facilitating Conditions	I only seek information from digital media that I trust. (such as Youtube, Facebook, web sites, and blogs)
Perceived Behavioral Control	Compatibility of digital content with different kinds of devices is an important issue in digital communication about skincare products. I can use digital media while buying skincare that I prefer. I have all the resources to use digital channels while buying skincare products.

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**Purchase Intention (Athapaththu & Kulathunga, 2018; Cui et al., 2021; Martín & Herrero, 2012)**

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Trust	<p>I feel that the digital media will not make false statement about skincare products.</p> <p>I think that digital media is characterized by the frankness and clarity of the services that it offers to the consumer.</p> <p>I think that this digital media has the necessary abilities to carry out its service about skincare products.</p> <p>I think that each digital media has sufficient experience in the marketing of the skincare products and services that it offers.</p>
Purchase	Looking at digital media, I feel motivated to buy skincare products.
Motivation	<p>Looking at digital media, I plan to buy skincare products.</p> <p>Knowing about skincare Brands from digital media, I desire to buy the skincare products of that Brand.</p>
Online purchase intention	<p>I desired to buy products that are advertised and promote on digital media.</p> <p>I intend to make a purchase after searching product information From digital media I prefer.</p> <p>Assuming I have access to digital media, I intend to but skincare product when I received all information needed.</p> <p>Given that I have access to digital media, I intention buy skincare products because it saves time.</p>

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**Purchase Behavior (Dahiya & Gayati, 2017a; 2017b)**

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Selection and Purchase	<p>Skincare products information via digital media, helps in easy selection and purchase.</p> <p>Information on place of distribution of skincare products, helps in easy purchase decision.</p> <p>Information on price of skincare products, helps in easy selection and purchase.</p> <p>I feel that information received from digital media helps easy selection of skincare brands.</p>
Impulse Buying	<p>Sometimes, seeing Brand's presenters on digital media, I feel an impulse to buy skincare products.</p> <p>I feel an urge to buy skincare products when I hear about promotion offer via digital media.</p>
Actual Usage	<p>I would look at information about skincare products that is available through digital media.</p> <p>I would buy and consume skincare products based on the information available over digital media.</p>
Post Purchase	<p>I often share feedback and satisfaction after consuming skin care products.</p> <p>Given that I consumed the skincare products, I feel using digital media throughout the decision-making process is a good idea.</p>

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