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The Effects of Online Social Influencers on Purchasing Behavior of Generation Z: An Empirical Study in Vietnam

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Abstract

The purpose of this study is to understand the impact of influencers on generation Z (Gen Z) in the online environment. This article has applied the theories of source credibility, TAM, IAM, and TPB to identify influencer characteristics that affect the purchasing behaviors of Gen Z customers. This research was conducted using a Google Form survey with 24 pre-designed questions. A total of 464 valid questionnaires from Gen Z Vietnamese were collected between November 2020 and January 2021. Data was analyzed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS 3 software. The analysis results confirmed that the components of influencer credibility have a positive impact on Gen Z's purchasing behaviors under the mediated influence of argument quality, perceived usefulness, and social influence. Surprisingly, for Gen Z, the influencers' attractiveness has the strongest impact on their online behavior. More specifically, attractiveness plays the most important role in the perceived usefulness and social influence of Gen Z customers, while influencers' expertise has the strongest impact on argument quality delivered to customers. This study provides evidence of a change in the way Gen Z responds to marketing activities. They are more drawn by the attraction of influencers than their expertise.

Keywords: Behaviour, Generation Z, Influencer, Online, Source Credibility

JEL Classification Code: J11, M30, M31

1. Introduction

The 21st century began with the explosion of technology with the Internet increasingly expanding around the world. Due to the growth of the Internet, online shopping is essential for the digital age and offers many benefits for both information search and the purchasing process (Rose & Samouel, 2009). While the consumer's purchasing decision process is relatively similar between traditional and online, there are also some differences due to the effects of the shopping environment and social media (Kotler & Armstrong, 2012). Derived from this change in the technological environment, consumer behavior is also subject to certain impacts. It can be said that the Internet has changed the purchasing behavior of customers (Nisar & Prabhakar, 2017).

Gen Z refers to young people born after 1995 (Lanier, 2017). They account for 33% of the world population, and 21% of the population of Vietnam (Nguyen et al., 2021). They have a positive attitude towards ads that show real people in real-life environments (Levin, 2020). They can spend hours surfing social networks, watching online videos, but will not be able to sit and watch ads even if they are only 30 seconds long. Arilaha et al. (2021) found that Gen Z customers dominate online shopping. Brown (2017) indicated that 67% of Gen Z use mobile phones and pay for online orders at the store. Even many of them own a dedicated smartphone

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just for online shopping (Gentina, 2019). This shows that the attraction of online shopping for customers of Gen Z is huge and is growing rapidly (Ao & Nguyen, 2020).

Social media and online influencers have become powerful marketing media and are used to replace traditional marketing methods that are losing their effectiveness (Schivinski & Dabrowski, 2016). Influencers are seen as a special component in the virtual community. They spread the word through various social media channels by sharing their stories, photos, or experiences, and opinions about a variety of subjects, services, and products (Harrigan et al., 2021). From here, the community will decide whether to refer or trust this information or not. This affects the decision to choose the products or services that the influencer has shared.

The issue of identifying potential influencers is important in the online marketing context. Research on influencers has been done in various fields such as brand messaging and perception or within the context of bloggers (Kozinets et al., 2010). At the same time, the popularity and the impact of influencers have been of interest to other researchers. Influencers have the ability to affect purchasing decisions as an expert, which shows the connection between influencers and purchasing behavior, especially in online shopping.

In psychosocial research, the behavioral intention models successfully explain customers' future behavior. Many scientists have used these models when studying Gen Z behavior such as the theory of planned behavior (Chaturvedi et al., 2020; Nguyen, 2019), the technology acceptance model (Do & Do, 2020), or the information adoption model (Ngarmwongnoi et al., 2020). However, research on the effect of influencers on behavioral intention models is limited, especially studies related to emerging markets like Vietnam. Therefore, this study was conducted to clarify the impact of influencers' role on the online purchasing behavior of Gen Z customers in Vietnam.

2. Literature Review

2.1. Customer Behavior

Customer behavior is the interaction between environmental stimuli and human cognition and behavior through which people change their lives. Gen Z is considered a generation that behaves differently from previous generations (Chaturvedi et al., 2020). Generation Z is open-minded and adaptable, with fixed opinions and flexible thinking. The characteristics most commonly found in Gen Z: people who have a deep understanding of technology (Turner, 2015); people who are quick (Chillakuri & Mahanandia, 2018), impatient, and highly interactive (Yazici & Ayazlar, 2021). Young people at this age have experienced several significant changes in values and behaviors as a result of a variety of external influences (Twenge, 2017).

Online shopping has become one of the popular trends in the Gen Z group (Hinduan et al., 2020). Moreover, this form has gradually become a habit of many young people so much so that in Brown's study (2017), although most customers want to experience and feel the product at the store before making a purchasing decision, 67% of people use their phones and pay for their orders online at the store. For companies that tend to do business on online platforms, Gen Z plays an important role. They are customers who use products and services and who flexibly give new solutions and thoughts about them, therefore assisting businesses in improving their products and services.

2.2. Theory of Planned Behavior

The theory of planned behavior (TPB) has been proposed by Ajzen (1991) for explaining almost any human behavior. TPB has proven that customers' attitudes have an impact on their intentions and in turn influence the behavior they will perform. Bentler and Speckart (1979) stated that attitude not only affects intention but also directly affects behavior. The concept of attitude is presented in the evaluative performance of a particular behavior related to the attitudinal object, such as purchasing a product (Blackwell et al., 2006).

According to Kudeshia and Kumar (2017), attitude is considered to have a direct relationship with intention. Pavlou and Fygenson (2006) argued that attitude plays an important role in behavioral intention to contribute to online shopping. From previous studies, attitude is an individual's positive perception of online shopping. A person with a more positive attitude is more likely to shop online. Therefore, the first hypothesis is stated as follows:

H1: *Attitude has a positive effect on purchasing behavior.*

2.3. Unified Theory of Acceptance and Use of Technology

The Unified Theory of Acceptance and Use of Technology (UTAUT) was introduced by Venkatesh et al. (2003). The model combines elements from many theoretical models with the goal of providing a common understanding of human adoption of new information systems. Social influence refers to social circumstances or norms that influence an individual's behavior and judgment process (Rice et al., 1990). Accordingly, social influence is the cognitive pressure that an individual receives from the social community when performing certain behaviors

(Triandis, 1980). That influence is created through messages or signals that help form perceptions of the value of certain products, technologies, or activities. Venkatesh (1996) suggested that social pressure has a vital effect on product and technology acceptance. Social influence causes individuals to change their thoughts, feelings, attitudes, or behaviors as a result of interactions with other individuals (Amblee & Bui, 2011). From the above arguments, the next hypothesis is proposed:

H2: *Social influence has a positive effect on attitude.*

2.4. Technology Acceptance Model

The Technology Acceptance Model (TAM) is considered an extension of TRA due to technological developments in the 4.0 revolution. Proposed by Davis (1989), TAM seeks to explain users' acceptance of the use of information technology. According to TAM, there are causal relationships between the user's attitude, intention, and behavior. The relationship between perceived usefulness and attitude has been tested by many researchers in various fields such as the studies of Liu et al. (2018), Priyadarshini et al. (2018), and Schepers and Wetzels (2007).

Perceived usefulness is the degree to which a person believes that using a particular system will enhance his/her job performance (Davis, 1989). Scientists have suggested that perceived usefulness is one of two important factors that explain the adoption of new technologies. Kim et al. (2016) found that customers who perceive a source as trustworthy experience a greater sense of usefulness in an online shopping environment. Chiu et al. (2010) assessed the perceived usefulness of the impact on online purchases. High-quality online posts and discussions allow customers not only to receive useful information but also to get advice on a particular topic (Zheng et al., 2013). In addition, Kim et al. (2016) demonstrated that when online shoppers receive higher quality information, they can perceive that information as useful. Therefore, the hypothesis is formed:

H3: *Perceived usefulness has a positive effect on attitude.*

2.5. Information Acceptance Model

Sussman and Siegal (2003) established the Information Acceptance Model (IAM) to explore how to receive counseling information in the context of using communication tablets, and it is frequently used in information or online communication acceptance research. Sussman and Siegal (2003) developed IAM through integrating TAM (Davis, 1989) with the elaboration likelihood model (ELM) (Petty & Cacioppo, 1986). The model forms an assessment of the argument quality of information as a transformation independent of the information acceptance process. Stephenson and Palmgreen (2001) argued that an individual who scrutinizes a message will have more arguments or thoughts. Arguments can be considered strong when they are logically sound and provide valid reasons for a claim, while weak arguments are more likely to lead to rejection and skepticism (Park et al., 2007). Similarly, Cheung and Thadani (2012) contended that a message is considered to have strong or weak quality based on its relevance, timeliness, accuracy, and comprehensiveness. The argument quality is similar to the reliable information, which is considered as a factor that creates the initial trust (Zhou, 2011), and from there, affects the customer's attitude when deciding whether to trust the information of the influencer or not. The hypotheses given here are:

H4: *Argument quality has a positive effect on attitude.*

2.6. Source Credibility Theory

Source credibility (SC) is a term often used to refer to the positive characteristics of an influencer that influence the recipient's acceptance of a message (Ohanian, 1990). Information from a credible source can influence a recipient's beliefs, opinions, attitudes, and/or behaviors through a process known as penetration. SC is an important factor in evaluating messages and receiving information in online communities (Zhang & Watts, 2008). This article proposes three aspects of influencer source credibility: trustworthiness, expertise, and attractiveness developed by Ohanian (1991) and applied by many researchers (Tseng & Fogg, 1999).

2.6.1. Attractiveness

The attractiveness of influencers plays a crucial role in drawing public attention to the messages given. The more attractive they are, the more popular they are and the stronger the impact on community behavior (Rifon et al., 2016). Even, according to Sertoglu et al. (2014), the social community often has high expectations with attractive influencers. Chaiken (1986) found that the more attractive someone is, the more social influence they have and the more likely people in their community are to trust them. From the above arguments, influencer attraction plays an important role in influencing society. Therefore, the new hypothesis is stated as follows:

H5: *Attractiveness has a positive effect on social influence.*

Source attractiveness is closely related to the endorser's appearance and can enhance persuasion based on

likeability, similarity, or desirability to the target audience. However, in the online environment, the attraction in the virtual world is left in the mind of the customer more than the words used (Ghapanchi et al., 2020). The message of an attractive communicator is presented more persuasively (Chaiken, 1979). Influencers need to convey a message that is attractive and appealing to users so that customers perceive the product's usefulness. So, the 6th hypothesis is formulated as follows:

H6: *Attractiveness has a positive effect on perceived usefulness.*

According to the IAM, when a receiver's critical evaluation ability declines, peripheral signals have a significant impact on the receiver's attitudes, beliefs, and influences because the receiver uses these signals as decision rules rather than making a perceived effort focused on the message content (Petty & Cacioppo, 1986). Consumers frequently rely on the advice of others or on those who have shared information about the product. As a result, those who are attractive and/or know how to create charisma are more likely to be noticed by consumers. This led to the 7th hypothesis being formulated:

H7: *Attractiveness has a positive effect on argument quality.*

2.6.2. Expertise

Expertise is the amount of knowledge and experience that a person has through cultivation and accumulation. The opinions of experts are more likely to be trusted than those of those who are not (Petty et al., 1981). According to social comparison theory, that people have an innate drive to evaluate themselves, often in comparison to others. People make all kinds of judgments about themselves, and one of the key ways that we do this is through social comparison, or analyzing the self in relation to others. This showed that a source with more expertise seems to be more persuasive and can influence consumers' perceptions as well as emotions and behaviors. Consumers tend to change their attitudes to match those of experts (Nakamura et al., 1990). Aral (2011) argued that expertise is a critical aspect of a person's ability to influence others' buying behavior. Typically, for products that need a high level of expertise such as chemicals and cosmetics, consumers tend to choose influencers with deep product knowledge and understanding about these products as references before making further decisions. Thus, a person's expertise is related to their social influence on social networks (Hu et al., 2019). The next research hypothesis is stated as follows:

H8: *Expertise has a positive effect on social influence.*

Speck et al. (1988) found that expert influencers provide a higher likelihood of product information recall than non-specialists but the difference is not statistically significant. When customers go shopping and come across things they don't understand, they will often have to rely on the opinions of those with more specialized knowledge to evaluate the usefulness of these products (Zhu et al., 2016). Sussman and Siegel (2003) found that the credibility of the source has a positive impact on the expert's usefulness to the information system. From the above arguments, the following hypothesis is formed:

H9: *Expertise has a positive effect on perceived usefulness.*

Shan (2016) has shown that strong arguments have a stronger impact on recipient attitudes than weak arguments that are made by experts. Even when they can scrutinize the message, many people believe they lack the necessary background knowledge to evaluate information directly (Siegrist, 2000; Siegrist & Cvetkovich, 2000). So, they will believe in arguments that they find convincing from influencers with expertise.

H10: *Expertise has a positive impact on argument quality.*

2.6.3. Trustworthiness

Trustworthiness refers to the honesty, integrity, and trustworthiness of an endorser. It is an important factor in the evaluation of messages and the reception of information in online communities (Zhang & Watts, 2008). It also reflects the ethical characteristics of the information provider, ensuring that individuals will provide valid information (Sussman & Siegal, 2003). Customers believe that once an influencer's ethical characteristics are verified, they are more willing to accept the information the influencer provides. Influencers must be truthful about both informational and functional products to make a positive impression on customers, who will then trust and accept the information. Once customers have placed their trust in an object, they easily accept and put their trust in that object the next time. According to Hu et al. (2019), consumers are often easily influenced by highly reliable information sources in the context of online shopping. Therefore, if an influencer can build an honest and trustworthy image, it will be easier to attract more interested people.

H11: *Trustworthiness has a positive effect on social influence.*

Using influencers is one of the most effective methods to attract public attention towards the goals of the business.

Many businesses capitalize on the value of trustworthiness by selecting endorsers who are widely considered to be honest and trustworthy (Shimp, 1997). Friedman et al. (1978) advised marketers to select their favorite people who are trusted influencers and wish to be brand ambassadors. Chen et al. (2014) reported that source credibility has a positive effect on perceived usefulness. When consumers are evaluating a product's usefulness, the message of the product communicated by a trustworthy influencer will have a significant impact (Zhu et al., 2016). Marketers need to choose highly reliable influencers to increase the brand's reputation and increase awareness for online sales. The next research hypothesis is stated as follows:

H12: *Trustworthiness has a positive effect on perceived usefulness.*

The source credibility has an impact on the quality of the information provided. The credibility of the source information has a strong effect on the user's attitude towards the message, attracting the interest of the consumer, and more, it is an essential element when the influencer recommends the product based on building credibility. Racherla et al. (2012) argued that sources with high argument quality are more trusted than those with low argument quality, hence information from untrustworthy sources will be double-checked. Thus, once an influencer is assessed as trustworthy, the information he/she provides will be highly controversial, attracting the attention and discussion of a large number of individuals. Accordingly, during the shopping process, consumers have devalued messages conveyed by spokespersons who they consider to be of low credibility (Eagly & Chaiken, 1975). With messages of high-quality argument, influencers with high credibility are more persuasive (Chu & Kamal, 2008). So, the final hypothesis is proposed as follows:

H13: *Trustworthiness has a positive effect on argument quality.*

3. Research Methodology

This article uses the quantitative research method by conducting a survey via Google Form to examine and verify the proposed research hypotheses. The subjects of the survey are people in the territory of Vietnam, geographically divided into three regions: North - Central - South, aged from 18 to 25 years old - of Gen Z - belonging to many different fields of work, education level, and occupation. The questionnaire is pre-designed with questions about the variables on the five-point Likert scale from 1 (Strongly disagree) to 5 (Strongly agree). The sampling period is from November 2020 to January 2021. With a growing communication Internet network in the post-COVID-19 epidemic period, along with the rise in Internet usage during the period of social isolation, the choice of online surveys, particularly through social networks, is the most effective way that should be used for mass surveys.

Out of 464 valid survey respondents, 20.3% were males and 79.7% were females, and the majority of the respondents were students (90.3%), while 5.2% are office workers, 2.8% are self-employed and 1.7% are in other jobs. 65.7% of respondents had a university degree and 26.1 % had a high school degree, the rest had other education levels. Almost all respondents located in the South accounted for 71.3%. Data is analyzed by using the PLS-SEM method to calculate the results through SmartPLS 3.0 software. The scales include 3 items and are inherited from previous research, specifically, from the study of Dwivedi and Johnson (2013) with the scales of Trustworthiness, Expertise, and Attractiveness; Zhu et al. (2016) with the Argument Quality and Perceived Usefulness scales; Kulviwat et al. (2009) with the Social Influence scale; George (2004) with the Attitudes scale; and Shah et al. (2019) with the Purchasing Behavior scale.

4. Results and Discussion

Data was analyzed using partial least squares – structural equation modeling. Hair et al. (2019) suggested that the PLS-SEM assessment process should be implemented through two phases. Phase 1 is a measurement model assessment with analytical steps such as reliability, convergent and discriminant validity, and multicollinearity. Phase 2, Structural model assessment, includes explanatory power check (R^2) and path coefficients assessment.

4.1. Measurement Model Assessment

In phase 1, data was analyzed to verify the reliability of the scales and the validity of the data. The first step is to verify the reliability of the scale through the composite reliability (CR) and Cronbach's alpha (CA). Table 1 shows that the scale of concepts in the research model has a limit value greater than 0.7 (Hair et al., 2010), especially the Social Influence scale's minimum CR of 0.869 and minimum CA of 0.774. Clearly, the scales obtained reliability (Table 1).

Next, the article checked the convergent validity of the scales (see Table 1). Convergence was assessed through the Average Variance Extracted (AVE), which was calculated from the variance extracted for all observed variables loaded on a single structure (Hair et al., 2010). According to Hair et al. (2017), if the AVE is more than 0.5, convergence is achieved since the observed variables of the scale can explain more than 50% of the variance of the concept it represents. Table 2 shows that the outer loadings are above 0.7, which also met the standard according to Götz et al. (2010).

Discriminant validity was evaluated by the Fornell and Larcker (1981) criterion table and the HTMT. When the square root of each construct's AVE (bolded in Table 2) is higher than the correlations between one concept and other concepts, Henseler et al. (2015) claimed that the concepts distinguish one another (lower case numbers). The different values in the measurement model satisfied the results in Table 3. Finally, all the VIF values (Table 3) are less than 5 (the highest value is 3.133) (Hair et al., 2014). Thus, the data shows that convergent validity, discriminant validity, and multicollinearity are satisfied.

Table 1: Reliability, Convergent Validity, and Multicollinearity Test

	CA	CR	AVE	Outer Loadings	VIF
Argument Quality	0.831	0.899	0.748	0.819–0.893	1.651–2.290
Attitude	0.828	0.897	0.744	0.872–0.913	1.939–3.133
Attractiveness	0.877	0.924	0.802	0.835–0.880	1.749–1.999
Expertise	0.873	0.922	0.797	0.871–0.906	2.110–2.678
Perceived Usefulness	0.845	0.906	0.763	0.855–0.886	1.959–2.176
Purchasing Behavior	0.802	0.884	0.718	0.803–0.902	1.596–2.215
Social Influence	0.774	0.869	0.688	0.809–0.845	1.582–1.598
Trust-worthiness	0.838	0.902	0.755	0.860–0.881	1.812–2.131

Table 2: Fornell – Larcker Criterion

	1	2	3	4	5	6	7	8
Argument Quality (1)	**0.865**							
Attitude (2)	0.655	**0.863**						
Attractiveness (3)	0.542	0.529	**0.895**					
Expertise (4)	0.570	0.531	0.309	**0.893**				
Perceived Usefulness (5)	0.696	0.692	0.540	0.504	**0.873**			
Purchasing Behavior (6)	0.637	0.708	0.427	0.513	0.641	**0.847**		
Social Influence (7)	0.632	0.648	0.588	0.459	0.668	0.595	**0.829**	
Trust-worthiness (8)	0.617	0.584	0.574	0.464	0.572	0.509	0.606	**0.869**

Table 3: Heterotrait-Monotrait Ratio (HTMT)

	1	2	3	4	5	6	7
Argument Quality (1)							
Attitude (2)	0.787						
Attractiveness (3)	0.633	0.616					
Expertise (4)	0.666	0.619	0.349				
Perceived Usefulness (5)	0.824	0.821	0.622	0.583			
Purchasing Behavior (6)	0.778	0.866	0.505	0.606	0.775		
Social Influence (7)	0.787	0.803	0.712	0.554	0.822	0.752	
Trust-worthiness (8)	0.738	0.699	0.666	0.540	0.675	0.620	0.749

4.2. Structural Model Assessment

Structural model assessment is an important criterion in the PLS-SEM method. After testing the statistical significance and, therefore, the effective confirmation of the hypotheses proposed, the most commonly used measure to evaluate the structural model is the coefficient of determination (R^2) (Hair et al., 2017). R^2 measures variance, which is explained in each endogenous structure; therefore, it is a measure of the model's explanatory power (Shmueli & Koppius, 2011). Typically, this value is rated strong, moderate, and weak with values 0.75, 0.50, and 0.25, respectively (Hair et al., 2011). The results of data analysis (Table 4 and Figure 1) show that the concepts in the model have R^2 values greater than 0.25. Thus, the research model satisfies predictability and most of the values are at the average level.

Figure 1 also shows that the path coefficients are both positive. This means that the survey results support the

Table 4: Bootstrapping Analysis

Path Coefficients	Original Sample	Standard Deviation	*T*-statistics	*P*-values
Argument Quality → Attitude	0.252	0.053	4.753	0.000
Argument Quality → Perceived Usefulness	0.434	0.054	8.095	0.000
Attitude → Purchasing Behavior	0.708	0.033	21.519	0.000
Attractiveness → Argument Quality	0.258	0.049	5.230	0.000
Attractiveness → Perceived Usefulness	0.186	0.041	4.519	0.000
Attractiveness → Social Influence	0.346	0.048	7.271	0.000
Expertise → Argument Quality	0.348	0.037	9.389	0.000
Expertise → Perceived Usefulness	0.137	0.045	3.032	0.002
Expertise → Social Influence	0.208	0.039	5.292	0.000
Perceived Usefulness → Attitude	0.344	0.052	6.670	0.000
Social Influence → Attitude	0.260	0.053	4.891	0.000
Trust-worthiness → Argument Quality	0.308	0.047	6.503	0.000
Trust-worthiness → Perceived Usefulness	0.134	0.047	2.823	0.005
Trust-worthiness → Social Influence	0.311	0.051	6.085	0.000

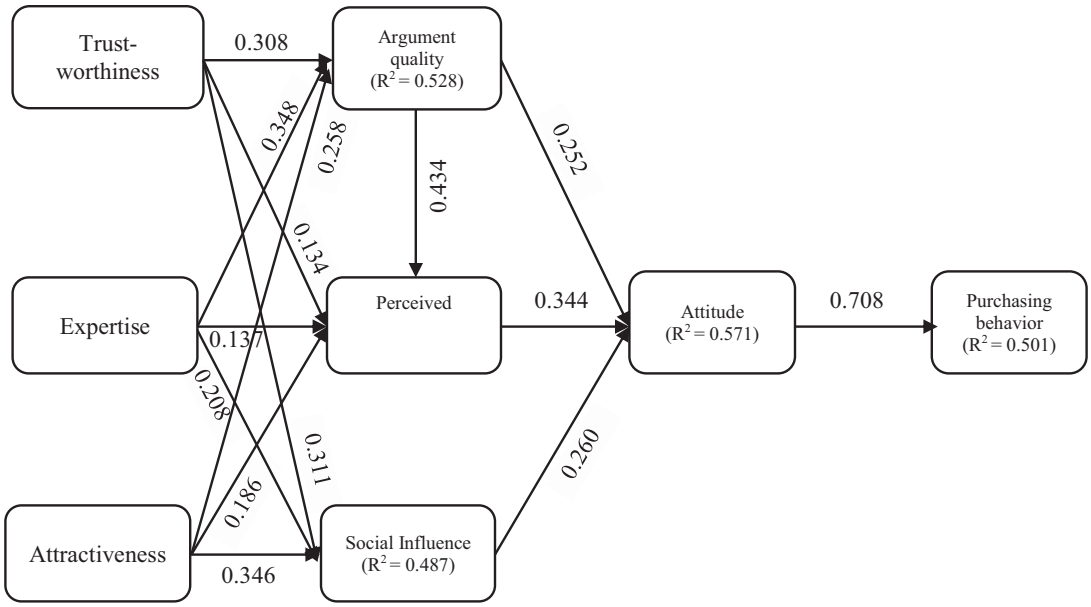

Figure 1: The Results of the Research Model

hypotheses that this research has proposed in the research model. However, Chin (1998) argued that PLS-SEM is a nonparametric method. Therefore, to prove the statistical significance of the research hypotheses, the bootstrap method should be used. According to Table 4, all path coefficients are in the 95% confidence interval (*P*-values less than 0.05 with the maximum *P*-value = 0.005 for the relationship between trustworthiness and perceived usefulness). Consequently, all hypotheses are accepted.

This study investigates the path coefficients between the relationships of factors through the total effects (Table 5). The first result shows that argument quality directly affects the perceived usefulness of the product with the strongest intensity ($\beta = 0.434$). Argument quality has also been shown to play a significant role in determining customer perceived usefulness (Mir & Rehman, 2013; Sussman & Siegal, 2003). This means that discussions and debates on online pages between influencers and customers have an important impact on the usefulness of the product. Therefore, businesses should also take into account creating a platform for influencers and customers to exchange and communicate with each other such as groups, fan pages, etc.

Another finding is that three SC theory factors have significant effects on other factors. More specifically, some previous studies such as Miranda et al. (2019) showed that the only factor of the SC model that affects perceived usefulness is expertise. Interestingly, despite the fact that attractiveness has the smallest impact on argument quality (= 0.258), influencers with significant attraction still have an impact on customers' perceived usefulness of products (= 0.298). In fact, as in the cosmetics and beauty industries, young people will love and care about that brand, if its influencers have good looks. This will make the products more appealing to potential customers.

A new point in this research shows that the trustworthiness and expertise of influencers are not the factors that have the strongest impact on the purchasing behavior of Vietnamese youth. Specifically, the indirect effect of the path coefficient between trustworthiness ($\beta = 0.177$) and expertise ($\beta = 0.170$) on purchasing behavior is the weakest. In contrast, attractiveness has the strongest path coefficient leading to purchasing behavior ($\beta = 0.182$), compared to the two factors mentioned above. The results show the difference between the study by Yoon and Kim (2016). Thus, the findings of this study demonstrate that before making a purchasing decision, young people in Vietnam, particularly Gen Z, are impacted by influencer attractiveness rather than expertise and trustworthiness.

Similarly, attractiveness (= 0.257) has an indirect effect on attitude. Furthermore, when compared to their trustworthiness and expertise, the direct association between the influencer's attractiveness and perceived usefulness of the product is still the highest (= 0.298). This result confirms that Gen Z is especially interested in the attractiveness of influencers such as appearance, style, and personality. Influencers show their appeal to their followers by dressing up in a fashionable manner or using professional images that show them at their best (Lou & Yuan, 2019). The explosion of entertainment programs in Vietnam by the end of 2020 has ushered in a new trend of influencers with attractive appearances, personalities, rebelliousness, and extreme individuality.

These things have a strong impact on the buying decision of Vietnamese young people today because Gen Z is one of those who want to express their difference to everyone around them, therefore they will follow influencers who have the same ideas as them. To capture this trend, when businesses choose an influencer to become a marketing media or endorser, the person's appeal will be the first criterion, followed by factors such as expertise and reliability. The last thing that needs to be mentioned is that the relationship between attitudes and purchasing behavior continues to be the strongest (= 0.708). This study demonstrates that, regardless of the influencer's attractiveness, trustworthiness, or expertise, it is important to strongly influence consumer views to drive their purchasing decisions.

Table 5: Path Coefficients: Total Effects

	1	2	5	6	7
Argument Quality (1)		0.401	0.434	0.284	
Attitude (2)				0.708	
Attractiveness (3)	0.258	0.257	0.298	0.182	0.346
Expertise (4)	0.348	0.241	0.288	0.170	0.208
Perceived Usefulness (5)		0.344		0.243	
Purchasing Behavior (6)					
Social Influence (7)		0.260		0.184	
Trust-worthiness (8)	0.308	0.250	0.267	0.177	0.311

5. Conclusion

Influencer marketing is a growing trend in the digital age (Kemp et al., 2019). The article shows that the features of influencers such as trustworthiness, expertise, and attractiveness have a significant impact on the information they provide such as argument quality, usefulness, or social influence, and have a positive impact on Gen Z customer attitudes and online purchasing behavior in Vietnam. Therefore, businesses should prioritize using influencers as mass media to attract customers, while also enhancing their expertise and appearance. Marketers can use this research as a reference when making decisions about the right brand representation.

Some previous studies such as Miranda et al. (2019) have shown that expertise is the only factor of SC that affects perceived usefulness. However, for Gen Z in Vietnam, attractiveness is the factor that they pay the most attention to when evaluating the usefulness, which in turn affects their purchasing behavior. Therefore, businesses need to consider the right ways to increase the appeal of influencers. On the contrary, if you want to increase the persuasiveness of marketing messages, expertise is an indispensable factor (Clark et al., 2012).

The proposed model of this research proves the effect of influencers on Gen Z's online purchasing behavior. It shows a change in behavior when switching from brick-and-mortar to online shopping. However, this research was conducted in Vietnam during the tumultuous COVID-19 pandemic. Therefore, the study has certain limitations such as the filtered questions that do not fully show the information that needs to be collected from the respondents' specific information about products purchased online, frequency, online shopping sites, etc, as well as the collected sample is not diversified (focusing mainly on students) so it is not representative of Gen Z in Vietnam. In addition, another limitation is that the research model can only develop certain components when combining the theory of SC, TAM, TPB without studying the remaining variables in the original model. Future studies may include these components to help extend the research model.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Amblee, N., & Bui, T. (2011). Harnessing the influence of social proof in online shopping: The effect of electronic word of mouth on sales of digital micro products. *International Journal of Electronic Commerce*, *16*(2), 91–113. https://doi.org/10.2307/23106395

Ao, H. T., & Nguyen, C. V. (2020). The reaction of Vietnam's generation Z to online TV advertising. *The Journal of Asian Finance, Economics, and Business*, *7*(5), 177–184. https://doi.org/10.13106/jafeb.2020.vol7.no5.177

Aral, S. (2011). Commentary—Identifying social influence: A comment on opinion leadership and social contagion in new product diffusion. *Marketing Science*, *30*(2), 217–223. https://www.jstor.org/stable/23011995

Arilaha, M. A., Fahri, J., & Buamonabot, I. (2021). Customer Perception of E-Service Quality: An Empirical Study in Indonesia. *The Journal of Asian Finance, Economics, and Business*, *8*(6), 287–295. https://doi.org/10.13106/jafeb.2021.vol8.no6.0287

Bentler, P. M., & Speckart, G. (1979). Models of attitude-behavior relations. *Psychological Review*, *86*(5), 452–64. https://doi.org/10.1037/0022-3514.40.2.226

Blackwell, R. D., Paul, W. M., & James, F. E. (2006). *Attributes of attitudes*. New York: Thomson Press.

Brown, K. M. (2017). *AdReaction–gen X, Y, and Z*. http://www.millwardbrown.com/adreaction/genxyz

Chaiken, S. (1979). Communicator physical attractiveness and persuasion. *Journal of Personality and Social Psychology*, *37*(8), 1387–1397. https://doi.org/10.1037/0022-3514.37.8.1387

Chaiken, S. (1986). Physical appearance and social influence. In C. P. Herman, M. P. Zanna, & E. T. Higgins (Eds.), *Physical appearance, stigma, and social behavior: The Ontario Symposium* (Vol. 3, pp. 143–177). Hillsdale, NJ: Erlbaum. https://doi.org/10.1002/acp.2350010409

Chaturvedi, P., Kulshreshtha, K., & Tripathi, V. (2020). Investigating the determinants of behavioral intentions of generation Z for recycled clothing: An evidence from a developing economy. *Young Consumers*, *21*(4), 403–417. https://doi.org/10.1108/YC-03-2020-1110

Chen, C. W., Chen, W. C., & Chen, W. K. (2014). Understanding the effects of eWOM on cosmetic consumer behavioral intention. *International Journal of Electronic Commerce Studies*, *5*(1), 97–102. https://doi.org/10.1.1.836.9084

Cheung, C. M., & Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision Support Systems*, *54*(1), 461–470. https://doi.org/10.1016/j.dss.2012.06.008

Chillakuri, B., & Mahanandia, R. (2018). Generation Z entering the workforce: The need for sustainable strategies in maximizing their talent. *Human Resource Management International Digest*, *26*(4), 34–38. https://doi.org/10.1108/JOCM-02-2020-0058

Chin, W. W. (1998). Issues and opinions on structural equation modeling. *Management Information Systems Quarterly*, *22*(1), 7–16. https://www.jstor.org/stable/249674

Chiu, C. M., Huang, H. Y., & Yen, C. H. (2010). Antecedents of trust in online auctions. *Electronic Commerce Research and Applications*, *9*(2), 148–159. https://doi.org/10.1016/j.elerap.2009.04.003

Chu, S. C., & Kamal, S. (2008). The effect of perceived blogger credibility and argument quality on message elaboration and

brand attitudes: An exploratory study. *Journal of Interactive Advertising*, *8*(2), 26–37. https://doi.org/10.1080/15252019.2008.10722140

Clark, J. K., Wegener, D. T., Habashi, M. M., & Evans, A. T. (2012). Source expertise and persuasion: The effects of perceived opposition or support on message scrutiny. *Personality and Social Psychology Bulletin*, *38*(1), 90–100. https://doi.org/10.1177/0146167211420733

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319–340. https://doi.org/10.2307/249008

Do, N. B., & Do, H. N. T. (2020). An investigation of Generation Z's Intention to use Electronic Wallet in Vietnam. *The Journal of Distribution Science*, *18*(10), 89–99. https://doi.org/10.15722/jds.18.10.202010.89

Dwivedi, A., & Johnson, L. W. (2013). Trust–commitment as a mediator of the celebrity endorser–brand equity relationship in a service context. *Australasian Marketing Journal*, *21*(1), 36–42. https://doi.org/10.1016/j.ausmj.2012.10.001

Eagly, A. H., & Chaiken, S. (1975). An attribution analysis of the effect of communicator characteristics on opinion change: The case of communicator attractiveness. *Journal of Personality and Social Psychology*, *32*(1), 136–144. https://doi.org/10.1037/h0076850

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Friedman, H. H., Santeramo, M. J., & Traina, A. (1978). Correlates of trustworthiness for celebrities. *Journal of the Academy of Marketing Science*, *6*(4), 291–299. https://doi.org/10.1007/BF02732313

Gentina, E. (2019). *Generation Z in France: Reverse socialization and social engagement*. Bingley, UK: Emerald Publishing Limited.

George, J. F. (2004). The theory of planned behavior and Internet purchasing. *Internet Research*, *14*(3), 198–212. https://doi.org/10.1108/10662240410542634

Ghapanchi, A. H., Purarjomandlangrudi, A., McAndrew, A., & Miao, Y. (2020). Investigating the impact of space design, visual attractiveness, and perceived instructor presence on student adoption of learning management systems. *Education and Information Technologies*, *25*(6), 5053–5066. https://doi.org/10.1007/s10639-020-10204-5

Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In: Vinzi, V. E., Chin, W. W., Hensler, J., & Wang, H. (Eds.), *Handbook of partial least squares* (pp. 691–711). Berlin, Heidelberg: Springer Publications. https://doi.org/10.1007/978-3-540-32827-8_30

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. Upper Saddle River, NJ: Pearson Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: Sage Publications.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Harrigan, P., Daly, T. M., Coussement, K., Lee, J. A., Soutar, G. N., & Evers, U. (2021). Identifying influencers on social media. *International Journal of Information Management*, *56*, 102246. https://doi.org/10.1016/j.ijinfomgt.2020.102246

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hinduan, Z. R., Anggraeni, A., & Agia, M. I. (2020). *Generation Z in Indonesia: The self-driven digital*. Bingley: Emerald Publishing Limited.

Hu, X., Chen, X., & Davison, R. M. (2019). Social support, source credibility, social influence, and impulsive purchase behavior in social commerce. *International Journal of Electronic Commerce*, *23*(3), 297–327. https://doi.org/10.1080/10864415.2019.1619905

Kemp, A., Randon McDougal, E., & Syrdal, H. (2019). The matchmaking activity: An experiential learning exercise on influencer marketing for the digital marketing classroom. *Journal of Marketing Education*, *41*(2), 141–153. https://doi.org/10.1177/0273475318803415

Kim, M. J., Chung, N., Lee, C. K., & Preis, M. W. (2016). Dual-route of persuasive communications in mobile tourism shopping. *Telematics and Informatics*, *33*(2), 293–308.

Kotler, P., & Armstrong, G. (2012). *Principles of marketing* (14th ed.). Upper Saddle River, NJ: Pearson Education Inc.

Kozinets, R. V., De Valck, K., Wojnicki, A. C., & Wilner, S. J. (2010). Networked narratives: Understanding word-of-mouth marketing in online communities. *Journal of Marketing*, *74*(2), 71–89. https://doi.org/10.1509/jm.74.2.71

Kudeshia, C., & Kumar, A. (2017). Social eWOM: does it affect the brand attitude and purchase intention of brands? *Management Research Review*, *40*(3), 310–330. https://doi.org/10.1108/MRR-07-2015-0161

Kulviwat, S., Bruner II, G. C., & Al-Shuridah, O. (2009). The role of social influence on the adoption of high tech innovations: The moderating effect of public/private consumption. *Journal*

of Business Research, *62*(7), 706–712. https://doi.org/10.1016/j.jbusres.2007.04.014

Lanier, K. (2017). 5 Things HR professionals need to know about generation Z: thought leaders share their views on the HR profession and its direction for the future. *Strategic HR Review*, *16*(6), 288–290. https://doi.org/10.1108/SHR-08-2017-0051

Levin, A. (2020). *Influencer marketing for brands*. New York: Springer.

Liu, Y., Hong, Z., Zhu, J., Yan, J., Qi, J., & Liu, P. (2018). Promoting green residential buildings: Residents' environmental attitude, subjective knowledge, and social trust matter. *Energy Policy*, *112*, 152–161. https://doi.org/10.1016/j.enpol.2017.10.020

Lou, C., & Yuan, S. (2019). Influencer marketing: how message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*, *19*(1), 58–73. https://doi.org/10.1080/15252019.2018.1533501

Mir, I. A., & Rehman, K. U. (2013). Factors affecting consumer attitudes and intentions toward user-generated product content on Youtube. *Management & Marketing*, *8*(4), 637. http://www.managementmarketing.ro/pdf/articole/330.pdf

Miranda, S., Cunha, P., & Duarte, M. (2019). An integrated model of factors affecting consumer attitudes and intentions towards YouTuber-generated product content. *Review of Managerial Science*, *15*(2), 56–73. https://doi.org/10.1007/s11846-019-00370-3.

Nakamura, M., Saito, K., & Wakabayashi, M. (1990). Effects of attitude formation, persuasive message, and source expertise on attitude change: an examination based on the elaboration likelihood model and the attitude formation theory. *Shinrigaku Kenkyu: The Japanese journal of psychology*, *61*(1), 15–22. https://doi.org/10.4992/jjpsy.61.15.

Ngarmwongnoi, C., Oliveira, J. S., AbedRabbo, M., & Mousavi, S. (2020). The implications of eWOM adoption on the customer journey. *Journal of Consumer Marketing*, *37*(7), 749–759. https://doi.org/10.1108/JCM-10-2019-3450

Nguyen, V. H., Truong, T. X. D., Pham, H. T., Tran, D. T., & Nguyen, P. H. (2021). Travel intention to visit tourism destinations: A perspective of generation Z in Vietnam. *The Journal of Asian Finance, Economics, and Business*, *8*(2), 1043–1053. https://doi.org/10.13106/jafeb.2021.vol8.no2.1043

Nguyen, X. T. (2019). Factors impacting on Korean consumer goods purchase decision of Vietnam's generation Z. *The Journal of Distribution Science*, *17*(10), 61–71. https://doi.org/10.15722/jds.17.10.201910.61

Nisar, T. M., & Prabhakar, G. (2017). What factors determine e-satisfaction and consumer spending in e-commerce retailing? *Journal of Retailing and Consumer Services*, *39*, 135–144. https://doi.org/10.1016/j.jretconser.2017.07.010

Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*, *19*(3), 39–52. https://doi.org/10.1080/00913367.1990.10673191

Ohanian, R. (1991). The impact of celebrity spokespersons' perceived image on consumers' intention to purchase. *Journal of Advertising Research*, *31*(1), 46–54. https://www.semanticscholar.org/paper/The-impact-of-celebrity-spokespersons%27-perceived-on-Ohanian

Park, D. H., Lee, J., & Han, I. (2007). The effect of online consumer reviews on consumer purchasing intention: The moderating role of involvement. *International Journal of Electronic Commerce*, *11*(4), 125–148. https://doi.org/10.2753/JEC1086-4415110405

Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly*, *30*(1), 115–143. https://doi.org/10.2307/25148720

Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In: Zanna, M. P. (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 123–205). Cambridge, MA: Academic Press. https://doi.org/10.1016/S0065-2601(08)60214-2

Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology, 41*(5), 847–855. https://doi.org/10.1037/0022-3514.41.5.847

Priyadarshini, C., Sreejesh, S., & Anusree, M. R. (2017). Effect of information quality of employment website on attitude toward the website: A moderated mediation study. *International Journal of Manpower*, *38*(5), 729–745. https://doi.org/10.1108/IJM-12-2015-0235

Racherla, P., Mandviwalla, M., & Connolly, D. J. (2012). Factors affecting consumers' trust in online product reviews. *Journal of Consumer Behaviour*, *11*(2), 94–104. https://doi.org/10.1002/cb.385

Rice, R. E., Grant, A. E., Schmitz, J., & Torobin, J. (1990). Individual and network influences on the adoption and perceived outcomes of electronic messaging. *Social Networks*, *12*(1), 27–55. https://doi.org/10.1016/0378-8733(90)90021-Z

Rifon, N. J., Jiang, M., & Kim, S. (2016). Don't hate me because I am beautiful: Identifying the relative influence of celebrity attractiveness and character traits on credibility. In: Waiguny, M. K. J., & Rosengren, S. (Eds.), *Advances in advertising research* (Vol. 6, pp. 125–134). Wiesbaden, Germany: Springer Gabler. https://doi.org/10.1007/978-3-658-10558-7_11

Rose, S., & Samouel, P. (2009). Internal psychological versus external market-driven determinants of the amount of consumer information search amongst online shoppers. *Journal of Marketing Management*, *25*(1–2), 171–190. https://doi.org/10.1362/026725709X410089

Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects. *Information & Management*, *44*(1), 90–103. https://doi.org/10.1016/j.im.2006.10.007

Schivinski, B., & Dabrowski, D. (2016). The effect of social media communication on consumer perceptions of brands. *Journal of*

Marketing Communications, *22*(2), 189–214. https://doi.org/10.1080/13527266.2013.871323

Sertoglu, A. E., Catli, O., & Korkmaz, S. (2014). Examining the effect of endorser credibility on the consumers' buying intentions: An empirical study in Turkey. *International Review of Management and Marketing*, *4*(1), 66–77. http://www.econjournals.com/index.php/irmm/article/view/666/pdf

Shah, A. M., Zahoor, S. Z., & Qureshi, I. H. (2019). Social media and purchasing behavior: A study of the mediating effect of customer relationships. *Journal of Global Marketing*, *32*(2), 93–115. https://doi.org/10.1080/08911762.2018.1497243

Shan, Y. (2016). How credible are online product reviews? The effects of self-generated and system-generated cues on source credibility evaluation. *Computers in Human Behavior*, *55*, 633–641. https://doi.org/10.1016/j.chb.2015.10.013

Shimp, T. A. (1997), *Advertising, promotion, and supplemental aspects of integrated marketing communication* (4th ed.). Fort Worth, TX: Dryden Press.

Shmueli, G., & Koppius, O. R. (2011). Predictive analytics in information systems research. *MIS Quarterly*, *35*(3), 553–572. https://doi.org/10.2307/23042796

Siegrist, M. (2000). The influence of trust and perceptions of risks and benefits on the acceptance of gene technology. *Risk Analysis*, *20*(2), 195–204. https://doi.org/10.1111/0272-4332.202020

Siegrist, M., & Cvetkovich, G. (2000). Perception of hazards: The role of social trust and knowledge. *Risk Analysis*, *20*(5), 713–720. https://doi.org/10.1111/0272-4332.205064

Speck, P. S., Schumann, D. W., & Thompson, C. (1988). Celebrity endorsements-scripts, schema, and roles: Theoretical framework and preliminary tests. *ACR North American Advances*, *15*(1), 69–76. https://doi.org/10.1016/j.sbspro.2014.04.002

Stephenson, M., & Palmgreen, P. (2001). Sensation seeking, perceived message sensation value, personal involvement, and processing of anti-marijuana PSAs. *Communication Monographs*, *68*(1), 49–71. https://doi.org/10.1080/03637750128051

Sussman, S. W., & Siegal, W. S. (2003). Informational influence in organizations: An integrated approach to knowledge adoption. *Information Systems Research*, *14*(1), 47–65. https://doi.org/10.1287/isre.14.1.47.14767

Triandis, H. C. (1980). Reflections on trends in cross-cultural research. *Journal of Cross-cultural Psychology*, *11*(1), 35–58. https://doi.org/10.1177/0022022180111003

Tseng, S., & Fogg, B. J. (1999). Credibility and computing technology. *Communications of the ACM*, *42*(5), 39–44. https://doi.org/10.1145/301353.301402

Turner, A. (2015). Generation Z: Technology and social interest. *The Journal of Individual Psychology*, *71*(2), 103–113. https://doi.org/10.1353/jip.2015.0021

Twenge, J. M. (2017). *iGen: Why today's super-connected kids are growing up less rebellious, more tolerant, less happy--and completely unprepared for adulthood--and what that means for the rest of us*. New York: Simon and Schuster.

Venkatesh, A. (1996). Computers and other interactive technologies for the home. *Communications of the ACM*, *39*(12), 47–54. https://doi.org/10.1145/240483.240491

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, *27*(3), 425–478. https://doi.org/10.2307/30036540

Yoon, D., & Kim, Y. K. (2016). Effects of self-congruity and source credibility on consumer responses to coffeehouse advertising. *Journal of Hospitality Marketing & Management*, *25*(2), 167–196. https://doi.org/10.1080/19368623.2014.1001932

Yazici, S., & Ayazlar, R. A. (2021). Generation Z and tourism entrepreneurship: Generation Z's career path in the tourism industry. In: Stylos, N., Rahimi, R., Okumus, B., & Williams, S. (Eds.), *Generation Z marketing and management in tourism and hospitality* (pp. 53–99). Cham: Palgrave Macmillan.

Zhang, W., & Watts, S. A. (2008). Capitalizing on Content: Information Adoption in Two Online communities. *Journal of the Association for Information Systems*, *9*(2), 73–94. https://doi.org/10.17705/1JAIS.00149

Zheng, Y., Zhao, K., & Stylianou, A. (2013). The impacts of information quality and system quality on users' continuance intention in information-exchange virtual communities: An empirical investigation. *Decision Support Systems*, *56*, 513–524. http://doi.org/10.1016/j.dss.2012.11.008

Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Internet Research*, *21*(5), 527–540. https://doi.org/10.1108/10662241111176353

Zhu, D. H., Chang, Y. P., & Luo, J. J. (2016). Understanding the influence of C2C communication on purchase decisions in online communities from a perspective of the information adoption model. *Telematics and Informatics*, *33*(1), 8–16. https://doi.org/10.1016/j.tele.2015.06.001