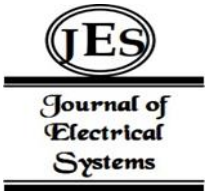
[1]Mr. Mohamed Moustafa Eissa

[2]Prof. Dr. Passent Tantawi

[3]Prof. Dr. Mohamed A. Ragheb

[4]Ass. Prof. Dr. Shaymaa Farid Fawzy

The Role of the Gratifications of Nutrition Instagrammers' Generated Content in Developing Actual Buying Behavior for Functional Foods in Egypt



Abstract: - The change in people's perception of the role of nutrition in health improvement has evolved a new concept of food with disease prevention characteristics called Functional Foods (FFs). This study examines the role of entertainment, informativeness, and socializing gratifications of Nutrition Instagramers' generated content in influencing consumers' purchasing intention and actual buying behavior of functional foods. It also aims to investigate the effect of these gratifications on the attitude toward Nutrition Instagramers (NIs) and if such attitude would affect the attitude toward FFs and consumers' buying intention. Also, it aims to investigate the association between buying intention and actual buying behavior of FFs and the gender-moderating role of this relationship. A quantitative research method was applied using a survey strategy, and the data were collected from 456 Egyptians who followed Nineteen NIs and analyzed through Structural Equation Model (SEM) using AMOS 25 software. The findings revealed that entertainment, socializing, and informativeness gratifications positively impact consumers' purchase intention and attitude toward FFs through the consumers' attitudes toward NIs, and the more informativeness of NIs' generated content, the more likely to influence consumers' purchasing intention directly. Also, our results indicated that attitudes toward NIs and FFs significantly impact consumers' purchase intention. Furthermore, our results revealed that gender strengthens the association between consumers' purchase intention and actual buying behavior in favor of males. Finally, this study bridges a gap about factors that impact attitudes toward NIs, FFs, consumer purchase intention, and consumer actual buying behavior of FFs with a unique application of the Uses and Gratifications Theory (UGT) in influencer marketing.

Keywords: The uses and gratifications theory, Influencer Marketing, Attitude toward influencers, Attitude toward Functional Foods, Purchasing intention, Actual buying behavior.

I. INTRODUCTION

Health and diet relationships have become more accepted due to consumers' lifestyle changes [1]. This change in people's perception of the role of nutrition in health improvement has evolved a new concept of nutritious food called Functional Foods (FFs) [2]. Consumers' acceptance of the FFs as a concept is the critical success factor for their market orientation [3]. Over time, several researchers have widely approached consumer behavior toward FFs. They have taken several perspectives, such as FFs consumers' characteristics [4], [5], consumers' perceptions of the healthiness of FFs [6], [7], and motives that influence consumers' intention to buy FFs [8], [9]. Most of these studies have broadly inspected the attitudinal perspective of FFs focusing on the general acceptance of the concept itself, ignoring consumers' actual buying behavior. Also, they neglect to consider the valuable role of influencer marketing in impacting consumer behavior toward FFs. Social media influencers are the micro-celebrities and opinion leaders

[1] [1]DBA, Department of Business Administration, [2] Professor Doctor, Graduate School of Business, [3] Professor Doctor, Department of Business Administration,

[4]Associate Professor, College of Management and Technology

[1,2,3,4]The Arab Academy for Science and Technology & Maritime Transport, Alexandria, Egypt

Email:- [1]Eissaino1978@gmail.com, [2]Pitantawi@aast.edu, [3]raghebmm@aast.edu, [4]Seldesouky@aast.edu

of the recent year and new development of celebrity endorsements that can add value to the products they advertise, like traditional celebrities, presumably making the products own their symbolic power [10]. With the evolved understanding of the diet-based approach to health, many Instagrammers started focusing on food, fitness, and health relationships. These influencers regularly publish and share appealing content such as images, videos, or text on Instagram and are called Nutrition Instagrammers (NIs). NIs publish several generated content about endorsed brands mixed with their daily living activities on Instagram, influencing their opinion leadership [11] and fulfilling several gratifications for their followers, such as entertainment, socializing, and informativeness. One of the effective models that gave a better understanding of the nature of motives that influence human behavior, why individuals use media, and how these media satisfy their needs is the Uses and Gratifications Theory (UGT) [12]. Recently, UGT has been applied in the social media context to understand how these users' generated media appealing their users [13]. Moreover, to measure the individuals' usage intention of these social media networks [14]–[16]. Despite prior researchers' diversified applications of the UGT, there is a limitation in applying UGT in the context of influencer marketing. However, UGT can provide a suitable framework for understanding consumers' benefits and gratifications from their favorite influencers' generated content on social media. Moreover, it can give a helpful framework for the benefits and gratifications introduced by the content generated by NIs. Health improvement and disease preventions are the most valuable benefits and main drivers for FFs consumption [17] and purchase intention [18]. So, the information highlighting these benefits can impact the consumer purchasing intention of such food. Accordingly, more research is needed to investigate the role of the informativeness of the content generated by NIs in impacting consumer purchasing intention of FFs. Consumer purchasing intention predicts future purchasing behavior [19]. Although various researchers have widely recognized purchase intentions as a precursor for actual buying behavior, many studies were concerned about their predictive accuracy [19]. The probability of switching from buying intention to actual buying behavior is heterogenic [20]. So, the purchasing intention does not always turn into actual buying behavior. Consequently, more research is needed to investigate whether the purchasing intention leads to actual buying behavior or not and exceptionally when the object of the study is new products with valuable expectations, such as FFs. Gender is one of the factors that can affect the consistency between the buying intention and the actual buying behavior of foods [21], [22]. Many scholars have mentioned the significant differences in consumers' exhibited buying behavior for FFs because of the preference heterogenicity between genders [2], [3], [7]. That indicates the need for more analysis of the gender role in moderating the association between the buying intention and FFs' actual buying behavior. The Egyptian market for functional food faces many challenges, such as low consumer awareness of the potential benefits of FFs, and there is a critical need to identify a credible communication tool that can deliver beneficial health messages about FFs properly [3]. Accordingly, this study aims to address the question of to what extent the uses and gratifications of NIs' generated content can influence consumers' buying intention and actual buying behavior of functional foods. Therefore, this study aims to analyze the effect of three main potential gratifications (entertainment, socializing, and informativeness) that consumers can receive from NIs' generated content on consumers' attitudes toward those NIs. In addition, to identify how such attitude would affect the attitude toward FFs and FFs consumers' purchasing intention. Moreover, examining the relationship between the purchasing intention and FFs' actual buying behavior besides investigating gender roles in moderating this relationship. Therefore, this study can address the following research questions (RQs):

RQ1. What are the relationships between the entertainment, socializing, and informativeness gratifications of the content generated by NIs and consumers' attitudes toward them?

RQ2. What are the relationships between consumers' attitudes toward NIs, consumers' attitudes toward FFs, and consumers' purchase intention of FFs?

RQ3. Can the informativeness of NIs' generated content impact consumers' purchase intention of FFs?

RQ4. Is there any association between the purchase intention and FFs actual buying behavior?

RQ5. Can gender moderate the relationship between purchase intention and actual buying behavior of FFs?

This research provides bearings for creating appropriate influencer marketing strategies for FFs via NIs via the suggestion that UGT could be used as a framework for understanding how certain types of gratifications of the content generated by NIs impact the purchasing intention and actual buying behavior of FFs, which contribute to improving the health of Egyptian society by improving the awareness of FFs as a concept among the Egyptian community. This article is organized as follows: Section 2 covers the theoretical background, that is, the concept of influencer marketing and purchase intention, and theoretical foundation and describes the conceptual model. Then Section 3 consists of the methods used in the research. Data analysis and results are presented in Section 4. Section 5 discusses and concludes this paper.

.

II. LITERATURE REVIEW

A. The Concept of Functional Foods

Functional Foods (FFs) have evolved, reflecting the belief in the health benefits of foods. This type of food with disease-prevention characteristics became available in the marketplace, and the concept became familiar to a large degree in well-developed countries. The uniqueness of FFs relies on their approach to achieving optimal health and reducing the probability of diseases through the intake of some foods [3]. Therefore, FFs offer growth opportunities in the food industry, especially with the increasing cost of health care and the willingness of elders to improve their quality of life [23]. Although Egypt has a growing population with increasing health consciousness, it shows low awareness of FFs among consumers and irrelevant market size to population number, which is attributed to the information shortage about the great value and benefits of FFs among Egyptians. The term "functional foods" has multiple definitions [24]. So, there is no commonly accepted definition or official definition for FFs [25] in most countries, which challenges nutritionists and food experts to identify the criteria that differentiate FFs from conventional foods [26]. However, some organizations have developed several working definitions for FFs. For example, the International Life Sciences Institute (ILSI) North America defines FFs as:*" Foods that, by virtue of physiologically active food components, provide health benefits beyond basic nutrition."* [27]. Most of the previous definitions of FFs embrace the following characteristics for FFs: Food is regularly consumed as part of a regular diet, has beneficial effects on one or more body functions, and naturally contains beneficial health components or/and has got some modifications (fortification, enrichment, enhancement, or removal) of some nutritional ingredients. Believing in the role of consumer acceptance of the concept FFs in driving market development, some studies have investigated consumer behavior toward FFs from the perspective of consumer acceptance and willingness to try and use functional foods [7], [9], [28]–[30]. Several studies were interesting in investigating attitudes toward FFs and taking two approaches: the antecedents of consumer attitudes toward FFs, and the consequences of attitudes toward FFs. Studies that took the approach of the antecedents related the consumer attitude toward FFs to consumer and product characteristics. For example, some studies have investigated the impact of consumer socio-demographic characteristics, such as age, sex, and education, on consumer attitude toward FFs [4], [31]–[33]. Also, some studies have examined consumers' behavioral characteristics, such as lifestyle [34]. Some studies take the direction of the product itself, investigating the effect of FFs characteristics (i.e., carriers and ingredients, price, taste, and brand) on the attitude toward FFs [3], [6], [7], [30], [35]–[37]. Despite the precious knowledge about the antecedents of consumer attitudes toward FFs, there is still a lack of information about the role of NIs in developing such attitudes. However, most customers perceive social media influencers as highly credible sources and significantly accept their messages [38]. Also, Chetioui et al. (2022) have concluded the impact of attitudes toward Instagram health and wellbeing influencers (HWIs) on consumers' attitudes and purchasing intentions of organic products. On the other side, several studies were interested in investigating the consequences of attitude toward FFs believing in attitude's role in influencing behavior intentions. These studies have applied the theory of planned behavior action [40] and have related the buying and consuming intention to attitude, subjective norms, and/or perceived behavioral control [32], [37], [41]–[45]. However, attitudes are sometimes not the best predictor for behavioral intention [46].

B. The Concept of influencer marketing

Influencer marketing is an online marketing tool that counts on collaboration between brands and influencers to improve brand recognition [47]. Companies use influencer marketing to deliver brand messages to their target segment through a third party called an influencer [48]. Besides the brands' message delivery, companies rely on influencer marketing to review their products through the spoken views of influencers, delivering marketing messages via a trusted source influencers [49] and inducing purchase intentions [50]. Also, influencer marketing provides more control and insights than traditional word of mouth [51]. Influencer marketing as a concept relies on endorsement same as celebrity endorsements depending on transferring the positive image of the influencer onto products [52], [53]. Social media influencers are non-traditional celebrities who acquire more followers and become famous through their activities on social media [54]. They became alternatives for the traditional celebrities who gain prominence through talent in sports, music, or movies, and their endorsement is high potential in advertising products [55]. The valuable role of influencer marketing as a marketing tool has been researched broadly in different contexts and several industries, such as fashion [51], [56]–[60], travel and tourism [48], [61]–[63], foods and beverages [39], [64]–[66] and health [67], [68]. However, there still needs to be more knowledge about the role of influencer marketing in the healthy food industry, especially in overlooked healthy food products like FFs. Some studies believed in the valuable role of the influencer as a content creator and related the influencers' success to their content that attracts followers and businesses. For example, Belanche *et al.* [69] have investigated the fits between the influencers 'characteristics and their generated content. Also, Casaló et al. [11] related the effectiveness of influencer marketing to influencer-generated *al* content characteristics such as perceived originality, uniqueness, quality, and quantity. Despite these valuable studies that draw on the role of the influencer as a content creator, [70] reviewed several scholarly articles about influencer-generated content and concluded that more literature is needed to assess the influencer-generated content's role in influencer marketing effectiveness. Influencers can be categorized based on communication platform into Bloggers, YouTubers, Facebookers, Instagramers, and Twitterers based on their social media platform. Nutrition Instagrammers (NIs) are Instagrammers that publish, and share nutrition-related appealing content giving their followers advice and plans for fitness and health improvement. As Instagram has become one of the most popular social media platforms in Egypt, with about 15.35 million users [71], many nutrition influencers in Egypt use Instagram to post their activities and experience with brands. NIs, like most social media influencers, use their Instagram accounts to show their daily activities and present new products or brands [72]. The content generated by NIs boosts their likeability and visibility among their followers on social media and promotes their audience's attitude. Further, the main factor closely linked to consumer buying behavior is the influencer-generated content itself, whether users have decided to follow or not follow an influencer account [73]. NIs generate regular posts spreading persuasive messages among their followers containing entertainment, socializing, and informativeness value. However, there is a lack of knowledge about these gratifications' role in impacting the attitude toward those NIs.

C. *The Uses and gratifications theory*

People are attracted to media to fulfill certain gratifications [74]. The uses and gratifications theory (UGT) is considered one of the most valuable models of understanding the reasons related to the usage of media by individuals and how it satisfies their needs [12]. UGT addresses the study of the benefits or gratifications that attract and catch audiences to different types of media [75] and the role of these gratifications in selecting media content [74].UGT recently grabbed the attention of many researchers in the context of social media. For example, Shao [13] presented a framework for explaining how user-generated media like YouTube, My Space, and Wikipedia appeal to individuals from the uses and gratifications perspective. Shao [13] introduced a novel framework describing the interdependence between consuming, participating, and producing user-generated media and the purpose of each action. Some prior literature has studied the role of usage and gratifications in driving customers to engage with brand social media platforms [76]–[80]. Also, some literature was concerned with studying the role of usage and gratifications in impacting the individuals' usage intention of these social media networks [14]–[16], [81], [82]. Media content is a prominent source that drives individual gratification [83]. So, several studies have examined the

impact of media content usage and gratifications on purchasing intention. For example, Kim [84] has investigated the role of the uses and gratifications of YouTube videos, including people opening boxes and carrying products (unboxing video-viewing) on purchasing intention. Although several studies were interested in the influencers' generated content attributes and their impact on consumer outcomes [85]–[88], there needs to be more attention to the application of in influencer marketing and to the relations between the usage and gratifications of the social media influencers' generated content and consumer behavioral response and outcomes such as attitude toward influencers, attitude toward endorsed products, purchasing intention, and actual buying behavior. Many studies have identified various gratifications for social media networks. However, there were three main gratifications in most of these studies: entertainment, socializing, and informativeness. For example, Lee and Ma [89] have identified these three main gratifications plus status-seeking and past social media sharing experience as influencing factors for news sharing in social media. Further, several studies about the antecedents for different social media engagement behavior have investigated these three main gratifications (entertainment, socializing, and informativeness) plus other different gratifications such as trust and rewards [90], remunerative [91], empowerment, brand love [92], and incentive [93].

The conceptual model

As illustrated in Figure 1, the conceptual model is highly inspired by the UGT approach in relating media usage to achieving certain gratifications [12] and in relating the selection of specific media content to these gratifications [74]. Also, the conceptual model is primarily based on TPB action [40]. Further, some relevant constructs were sourced from prior literature [39], [51], [80]. Based on Ho and See-To [80], entertainment, socializing, and informativeness have been put forward as three independent variables impacting consumers' attitudes toward NIs directly and impacting consumers' purchase intention indirectly through consumers' attitudes toward NIs. Consumers' attitudes toward NIs directly impact customers' attitudes toward FFs [39], [51]. The purchasing intention is influenced by consumers' attitudes toward FFs, as suggested by the TPB, and by consumers' attitudes toward NIs [39], [51] and leads to actual buying behavior, as suggested by the TPB. We added the direct impact of informativeness on consumers' purchase intention of FFs, the gender moderating role between purchasing intention and actual buying behavior, as suggested by Hesham *et al.* [94], and the mediating role of consumers' attitudes toward NIs between entertainment, socializing and informativeness and consumers' attitudes toward FFs, as suggested by Ko *et al.* [95].

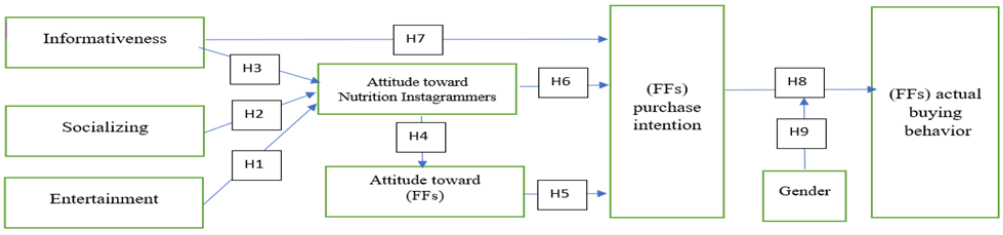


Figure 1- Conceptual model

Hypotheses

The digital communication message that provides entertainment reduces the audience's perceived intrusiveness, initiates a positive attitude toward the communication channel, and influences the intention toward the senders [96]. Entertainment gratification has shown a significant role in influencing the attitude toward Web advertising [97]–[99], mobile advertising[100]–[102], and social media advertising[103], [104]. NIs create and publish entertaining content on Instagram, exploiting their beneficial role as content creators [50] to boost their likeability and visibility among their followers and to promote their audience's attitude. Hence: ***H1:*** The entertainment of the content

generated by NIs has an impact on consumers' attitudes toward those NIs**.** Socializing gratification impacts users' positive behavior on social media brand pages, such as page joining and liking behavior [77], [105]. Instagram provides socializing gratification via story-type short videos (IGSV), impacting positive attitudes toward these stories [106]. NIs exploit Instagram's features to post socializing content gratifying their followers and influencing followers' intention to share their content [89]. This sharing behavior increases the number of those NIs followers improving their likability [107]. Further, Ho and See-To [80] have concluded the significant impact of socializing gratification of tourist attraction fan pages on users' attitudes toward these pages. Therefore: ***H2:*** The socializing of the content generated by NIs has an impact on consumers' attitudes toward those NIs. The information about products influences the advertising value and the attitude toward advertising across the Web [97], [98], mobile [100], [108], [109], and email [96], [110]. Moreover, the information the communication message provides makes it perceived more valuable and improves the attitude toward it [109]. Also, the attitude toward digital communication messages is influenced by their informativeness [111]. Accordingly: ***H3:*** The informativeness of the content generated by NIs has an impact on consumers' attitudes toward those NIs.

The effectiveness of influencer marketing relies on the meaning transfer model [10] and aims to transfer the consumers' positive attitudes toward the influencer to the brand [52]. [112] have revealed that the attitude toward the endorser was positively associated with the attitude toward endorsed brands. Further, Torres *et al.* [113] have indicated that attitude toward the endorsement is positively related to attitude toward the brand. Also, Chetioui *et al.* [51] concluded that consumers' attitude toward fashion influencers is positively associated with the consumers' brand attitude. Hence**:** ***H4:*** Consumers' attitudes toward NIs have an impact on consumers' attitudes toward FFs. The theory of planned behavior [40] has related the consumers' buying and consuming intention to attitude, subjective norms, and perceived behavioral control. So, many food studies have concluded a significant association between attitude toward food and purchase intention [114]–[118]. Correspondingly, the association between attitude and purchase intention was significant in several FFs studies [32], [37], [43]–[45]. Accordingly: ***H5****:* Consumers' attitudes toward FFs have an impact on consumers' purchase intention of FFs .Customers show more intention to purchase the advertised products when these products are influenced by credible social media influencers [119], [120]. This perceived credibility of social media influencers reflects consumers' attitudes toward them. So, there were significant associations between attitudes toward social media influencers and purchase intention in several studies [39], [51], [119], [121]. Therefore: ***H6:*** Consumers' attitudes toward NIs have an impact on consumers' purchase intention of FFs. Information is valuable in consumers' purchasing decisions [122]. Further, the inferred information resulting from consumer-to-consumer communication has a significant role in consumer purchasing decisions [123]. NIs are nutrition experts that can generate informativeness content about FFs presenting and clarifying several products' health claims, health benefits, and nutrition facts that are significant determinants of FFs' purchasing intention and decision [8], [17], [124]–[126]. Accordingly: ***H7:*** The informativeness of the content generated by NIs has an impact on consumers' purchase intention of FFs. The theory of reasoned action (TRA) [127] and the theory of planned behavior (TPB) [40] have underlined behavior intention as an immediate antecedent of actual behavior. Accordingly, several studies have concluded a significant association between purchasing intention and actual buying behavior in the context of food [128]–[132]. Hence: ***H8:*** The consumers' purchase intention has an impact on consumers' actual buying behavior of FFs.

Females are more likely to take actual behavior to alter their body image because they have different attitudes and behaviors toward their body image than males [133]. Conversely, males with stronger perceptions of the ecological, nutritional, and naturalness merits of organic food have shown a more positive organic food buying behavior [22]. Further, Hesham *et al.* [94] have concluded the moderating role of gender on the relationship between purchasing intention and purchasing decision of healthy foods. Therefore: ***H9:*** Gender moderates the relationship between purchase intention and actual buying behavior of FFs. Entertainment, socializing, and informativeness as gratifications can impact several consumer behavioral outcomes through their impact on consumer attitude. For example, the information and entertainment gained from Stories-type short videos positively influence the continuance intention to view these stories through their impact on the individual's attitude toward them [106].

Further, the informativeness, entertainment, and socializing of gratifications of tourist attraction fan page affect a user's intention to visit this fan page through their impact on the user's attitude toward it [80]. Accordingly: ***H10a:*** Consumers' attitudes toward NIs mediate the relationship between the entertainment of the content generated by NIs and consumers' purchase intention of FFs. ***H10b*:** Consumers' attitudes toward NIs mediate the relationship between the socializing of the content generated by NIs and consumers' purchase intention of FFs. ***H10c:*** Consumers' attitudes toward NIs mediate the relationship between the informativeness of the content generated by NIs and consumers' purchase intention of FFs. The information, entertainment, and social interaction gratifications that Web site provides for its users affect the attitude toward the brand by impacting the attitude toward this Web site [95]. Also, the information and entertainment of advertising on Instagram influence the attitude toward the advertised brands via its impact on the attitude toward the advertisement [134]. Further, the effectiveness of influencer marketing counts on the meaning transfer model [10] by transferring the consumers' positive attitudes toward the influencer to the brand [52]. Accordingly: ***H11a:*** Consumers' attitudes toward NIs mediate the relationship between the entertainment of the content generated by NIs and consumers' attitudes toward FFs. ***H11b***: Consumers' attitudes toward NIs mediate the relationship between the socializing of the content generated by NIs and consumers' attitudes toward FFs. ***H11c:*** Consumers' attitudes toward NIs mediate the relationship between the informativeness of the content generated by NIs and consumers' attitudes toward FFs. User that shows a positive attitude toward Web site shows high purchasing intention for the advertised products via the positive attitude they developed toward these advertised products [95]. Also, the attitude toward fashion influencers impact the advertised products purchasing intention via its impact on consumer attitude toward these products [51]. Hence: ***H12:*** Consumers' attitudes toward FFs mediate the relationship between consumers' attitudes toward NIs and consumers' purchase intention of FFs.

III. RESEARCH METHODOLOGY

Measurement

For testing e research hypotheses and the proposed model, all constructs were adopted, with some modifications, from prior literature. The questionnaire was developed in English and Arabic, adopting the back-translation method [135] to translate the item from English to Arabic. A five-point Likert Scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure the observed variables. Socio-demographic questions about age, gender, education, income, and nationality were included at the beginning of the questionnaire.

Sample and data collection

As the research population refers to Egyptians who follow Nutrition Instagramers (NIs), the author targeted the Egyptians who follow NIs that gained followers more than 100,000 followers on Instagram and has authority with their followers in nutrition topics and has got their nutrition authority from education or credible training related to the nutrition field or only from having personal experience or a passion for the nutrition field and targeted by companies. Nineteen NIs agreed to publish the link to the online survey instrument in a story on their Instagram page. As the researcher may redefine the population to be more manageable to be a subset of the population called the target population [136]. The author targeted the Egyptians who follow the 19 Nutrition Instagrammers matched with the previous author's operational definition and agreed to publish the online survey. The overall targeted population included in this study is the total number of followers for those 19 NIs, which is 7,764,000 elements. A pilot study was conducted with 40 participants to test the employed questionnaire, noticing the readability problems and uncovering questions that make participants uncomfortable. The pilot test's participants were asked to provide feedback concerning the clarity of questions, and the results of the pilot research were not included in the analysis. The data was collected from April to May 2023, and disproportionate stratified random sampling was used to represent all elements in the target population by dividing the targeted population into nineteen strata. The common trait or attribute between the members of each stratum is their followership of a particular NIs of the nineteen. The subjects are

selected randomly from each stratum as each NIs publishes the online survey instrument on a story in their accounts, giving their followers the same chance to participate. Eight hundred respondents filled out the questionnaire, 456 (57%) valid responses were maintained, while 344 (43%) responses were rejected because they were not Egyptians or for missing answers.

IV. RESULTS AND FINDINGS

The 456 respondents comprised 230 (50.4%) males and 226 (49.6%) females. Most respondents, 262 (57.5%), were from18 and less than 30 years old, 129 (28.3%) respondents were from 30 and less than 40 years old, 49 (10.7%) were from 40 and less than 50 years old, finally, 16 (3.5 %) were 50 years old and above (Table 1). Structural equation modeling (SEM) has been adopted in this research to investigate the hypothesized model's series of relationships. Matching with Hair *et al.* [137], hypotheses testing following confirmatory factor analysis was conducted, and the valuation of the measurement model underlying our research model was carried out.

Table 1: The Respondents Socio-demographic Traits

Variables	Description	Frequency	Percentage (%)
Gender	Male	230	50.4%
	Female	226	49.6%
Age	From 18 and less than 30 years	262	57.5%
	From 30 and less than 40 years	129	28.3%
	From 40 and less than 50 years	49	10.7%
	50 years and above	16	3.5%
Education	High school or below	56	12.3%
	Bachelor's degree	329	72.1%
	Master's degree	56	12.3%
	Doctor's degree or above	15	3.3%
Monthly income (EGYPT LE)	Below 4000 LE	219	48.0%
	From 4000 to 10,000 LE	135	29.6%
	Over 10,000 LE	102	22.4%

Measurement model

As illustrated in Table 2, each construct's internal consistency level was acceptable, with the standardized loading ranging from 0.536 to 0.944, exceeding the minimum cutoff point of 0.50. Composite reliability (CR) was used to measure the reliability of a construct in the measurement model. The results in Table 2 indicate that the CR of all constructs ranged from 0.810 to 0.926, exceeding the threshold value of 0.70, which confirms the construct's reliability [138]. We examined the convergent validity of the measurement model using the average variances extracted (AVE). As presented in Table 2, the AVE is higher than 0.5 for all the constructs, indicating the convergent validity of our model. The discriminant validity was tested using [139], indicating that to guarantee discriminant validity, the square root of the AVE for each latent variable must be greater than the correlations among any other latent variable. As illustrated in Table 3, the square root of the AVE (main diagonal) was superior to the correlations among the latent variables in all cases. In addition, the correlation between any two constructs is lower than their respective CR, which shows discriminant validity [139]. The Chi-Square ($\square^2$), Degrees of Freedom (DF), Chi-Square/ Degrees of Freedom ($\square^2$ /DF), Root Mean Square Error of Approximation (RMSEA), Tucker-Lewis index (TLI), and Comparative fit index (CFI) were used to assess the fit of measurement model with data. $\square^2$

was 846.89 (> 0.05), DF was 329 (> 0), □² /DF was 2.574 (< 3.0), RMSEA was .059 (< 0.08), TLI was .936 (>0.90), and CFI was .945 (>0.90). The values of the previous indices confirmed a good fit of the measurement model with the data.

Structural model

In order to examine the relationship between research variables, a structural model was developed using the AMOS software, as shown in Figure 2. The results obtained for □², DF, □² /DF, RMSEA, TLI, and CFI also indicated an acceptable and good fit of the structural model as these indices fall within the recommended threshold values, i.e., □² was 909.521 (> 0.05), DF was 340 (> 0), □² /DF was 2.675 (< 3.0), RMSEA was .061 (< 0.08), TLI was .932 (>0.90), and CFI was .939 (>0.90). The path analysis of the structural model, as demonstrated in Table 4 and Figure 2, results show that entertainment gratifications (β = 0.401, CR (Critical Ratio) > 1.96, p<0.05), socializing gratifications (β = 0.125, CR > 1.96, p<0.05), and informativeness gratifications (β = 0.533, CR > 1.96, p<0.05) significantly impact consumers' attitudes toward NIs; and altogether explain 94.3 % of the variation of consumers' attitudes toward NIs (R^2 = 0.943), supporting the three hypotheses: H1, H2, and H3. Consumers' attitudes toward NIs significantly impact consumers' attitudes toward FFs (β = 0.703

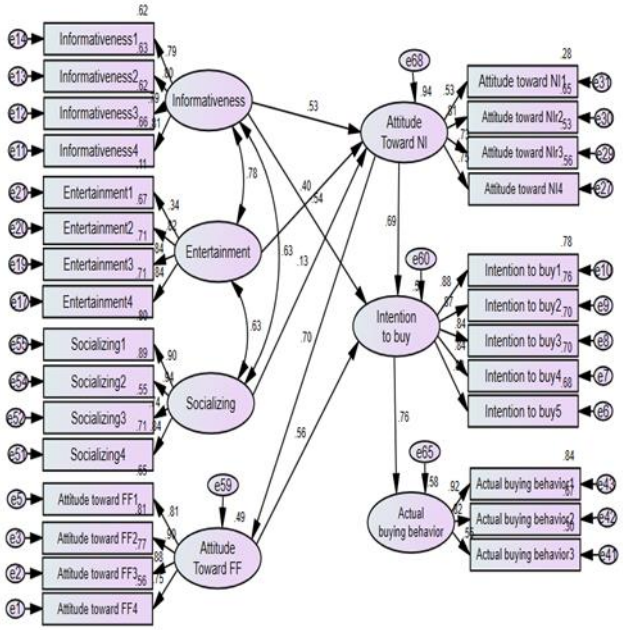
Table 2: Factor Loadings, Composite Reliabilities and Average Variance Extracted

Constructs	Items	Loading	CR	AVE
Entertainment gratifications	Entertainment1	0.536	0.818	0.552
	Entertainment2	0.818		
	Entertainment3	0.842		
	Entertainment4	0.845		
Socializing gratifications	Socializing1	0.897	0.918	0.739
	Socializing2	0.944		
	Socializing3	0.741		
	Socializing4	0.844		
Informativeness gratifications	Informativeness1	0.794	0.878	0.642
	Informativeness2	0.807		
	Informativeness3	0.796		
	Informativeness4	0.808		
Attitude toward NIs	Attitude toward NI1	0.581	0.825	0.545
	Attitude toward NI2	0.838		
	Attitude toward NI3	0.741		
	Attitude toward NI4	0.767		
Attitude toward FFs	Attitude toward FF1	0.810	0.901	0.697
	Attitude toward FF2	0.900		
	Attitude toward FF3	0.873		
	Attitude toward FF4	0.747		
Intention to buy	Intention to buy1	0.870	0.926	0.714
	Intention to buy2	0.871		

FFs	Intention to buy3 Intention to buy4 Intention to buy5	0.832 0.829 0.822		
FFs actual buying behavior	Actual buying behavior1 Actual buying behavior2 Actual buying behavior3	0.909 0.815 0.547	0.810	0.597

CR > 1.96, p<0.05), explaining 49.5 % of the variation of consumers' attitudes toward FFs (R^2 = 0.495), supporting H4. Consumers' attitudes toward FFs (β = 0.560, CR > 1.96, p<0.05), Consumers' attitudes toward NIs (β = 0.692, CR > 1.96, p<0.05), and informativeness gratifications (β = 0.540, CR > 1.96, p<0.05) all significantly impact consumers' purchase intention of FFs; and altogether explain 54.4 % of the variation of consumers' purchase intention of FFs (R^2 = 0.544)), supporting the three hypotheses: H5, H6, and H7. Lastly, the consumers' purchase intention (β = 0.758, CR > 1.96, p<0.05) significantly impacts consumers' actual buying behavior of FFs, explaining 57.5 % of the variation of consumers' actual buying behavior of FFs (R^2 = 0.575), supporting H8.

Table 3: Discriminant Validity of the constructs



Notes: The elements on the diagonal (bolded values) represent the square root of AVE, off-diagonal values are the correlations of the variables.

This research employed the bootstrapping procedure [140] to assess the indirect effects. Regarding mediating effects, the results, as demonstrated in Table 5, shows that consumers' attitudes toward NIs mediate the effects of entertainment gratifications (β = 0.435, P = 0.004, P<0.05), socializing gratifications (β = 0.136, P = 0.002, P<0.05), and informativeness gratifications (β = 0.580, P = 0.005, P<0.05) on consumers' purchase intention of FFs, supporting the three hypotheses: H10a, H10b, and H10c. Further, consumers' attitudes toward NIs mediate the effects of entertainment gratifications (β = 0.282, P = 0.004, P<0.05), socializing gratifications (β = 0.088, P =

0.002, P<0.05), and informativeness gratifications (β = 0.375, P = 0.004, P<0.05) on consumers' attitudes toward FFs, supporting the three hypotheses: H11a, H11b, and H11c. Lastly, Consumers' attitudes toward FFs mediate the effects of consumers' attitudes toward NIs (β = 0.394, P = 0.003, P<0.05) on consumers' purchase intention of FFs, supporting H12.This research employed Multigroup Analysis based on gender to examines which path coefficients differ significantly between the two group, the results, as demonstrated in Table 6, shows the positive

relationship between purchase intention and actual buying behavior of FFs is stronger for Males (β Value for Males =0.805 and β Value for Female=0.704), supporting H9.

Variables	Entertainment	Socializing	Informativeness	Attitude toward NI	Attitude toward FF	Intention to buy	Actual buying behavior
Entertainment	**0.743**						
Socializing	0.634***	**0.860**					
Informativeness	0.665***	0.631***	**0.801**				
Attitude toward NI	0.699***	0.684***	0.656***	**0.738**			
Attitude toward FF	0.599***	0.528***	0.682***	0.676***	**0.835**		
Intention to buy	0.485***	0.470***	0.522***	0.503***	0.713***	**0.845**	
Actual buying behavior	0.334***	0.405***	0.405***	0.369***	0.538***	0.752***	**0.773**

Figure 2-Structural model (Final Result)

Hypothesis	**Structural Path**	**Std. beta**	**Critical Ratio (CR)**	**P-value**	**Decision**
H1	Entertainment → Attitude toward NI	0.401	5.139	***	Supported
H2	Socializing → Attitude toward NI	0.125	3.494	***	Supported
H3	Informativeness → Attitude toward NI	0.533	7.595	***	Supported
H4	Attitude toward NI → Attitude	0.703	9.919	***	Supported

	toward FF				
H5	Attitude toward FF → Intention to buy	0.560	9.082	***	Supported
H6	Attitude toward NI → Intention to buy	0.692	26.944	***	Supported
H7	Informativeness → Intention to buy	0.540	6.967	***	Supported
H8	Intention to buy → Actual buying behavior	0.758	17.782	***	Supported

Table 4: Results of the structural model analysis

***** Significant at p <0.05**

Hypothesis	Indirect effect	Std. beta	P-Value	Decision
H10a	Entertainment → Attitude toward NI → Intention to buy	0.432	0.004	Supported
H10b	Socializing → Attitude toward NI → Intention to buy	0.136	0.002	Supported
H10c	Informativeness → Attitude toward NI → Intention to buy	0.580	0.005	Supported
H11a	Entertainment → Attitude toward NI → Attitude toward FF	0.282	0.004	Supported
H11b	Socializing → Attitude toward NI → Attitude toward FF	0.088	0.002	Supported
H11c	Informativeness → Attitude toward NI → Attitude toward FF	0.375	0.004	Supported
H12	Attitude toward NI → Attitude toward FF → Intention to buy	0.394	0.003	Supported

Table 5: Results of mediating effects

Table 6: Gender effect analysis - Multi group

Hypothesis	Structural Path	Beta Value (males)	P-Value (males)	Beta Value (females)	P-Value (females)	Decision
H9	Intention to buy → Actual buying behavior	0.805	***	0.704	***	Supported

analysis

V. DISCUSSION AND CONCLUSIONS

The results of the current study have addressed the main research question of to what extent the uses and gratifications of NIs' generated content can influence consumers' buying intention and actual buying behavior of FFs by proving that UGT can afford a suitable framework for the benefits and gratifications fulfilled by the content generated by NIs. This study showed that the content generated by NIs has a significant role in impacting the attitude toward them via fulfilling several gratifications, such as entrainment, socializing, and informativeness gratifications which is consistent with prior relevant studies [80], [100], [111], [141], [142]. Further, the current study showed that entertainment, socializing, and informativeness gratifications of the content generated by NIs positively impact both consumers' attitudes and consumers' purchase intention of FFs through the consumers' attitudes toward NIs, indicating that NIs are a credible communication tool that can correctly and reliably deliver the health benefits message of FFs to consumers via an appealing content. The follower relies on NIs' role as content creators, and their success depends on how much their content can attract followers and businesses. The informativeness gratification showed in this study the most significant positive impact on consumers' attitudes toward NIs, followed by entertainment and socializing, which was not matched with other scholars [80], [100] that show the greater weight of entertainment gratification which indicates that the weights of theses gratifications vary according to the research context. The results of our study showed the direct positive significant impact of consumers' attitudes toward NIs on consumers' attitudes toward FFs, and the direct positive impact of both attitudes on consumers' purchase intention of FFs, aligning with prior findings [39], [51], indicating that attitude is one of the determinants of intention behavior that leads to purchase intention [40]. This study showed that consumers' attitudes toward NIs have an indirect positive impact on consumers' purchase intention of FFs through the consumers' attitudes toward FFs indicating that customers show more intention to purchase FFs when these products are influenced by NIs, who have acquired positive attitudes from those customers that transferer into positive attitudes toward these products. Also, it showed the positive significant impact of the informativeness of the content generated by NIs on consumers' purchase intention of FFs, indicating the importance of information role about FFs products' health claims, health benefits, and nutrition facts on purchasing intention [8], [17], [124]–[126]. Also, this study showed the significant impact of consumers' purchase intention on consumers' actual buying behavior of FFs, which corroborated the prior finding in food [128]–[132]. Finally, the finding of the current study indicates that although females show more interest in healthy food, taking actual behavior to alter their body image [133], their probability of transferring from purchasing intention to actual purchasing for FFs is lower than males which may due to that male have stronger perceptions of the nutritional and health-beneficial merits of FFs than females.

Theoretical implications

Matching with the advocacy of Swanson [74] within UGT research about the need for more understanding of message content gratifications outcomes, this research has extended the knowledge of uses and gratifications theory in the context of marketing through a pioneer application in influencer marketing. The results of this research suggest that UGT could be used as a framework for understanding how certain types of gratifications of the content generated by social media influencers impact the purchasing intention and actual buying behavior of the endorsed products, which can lead to a further application of UGT in a new media or other contexts rather than FFs. This study contributed to the literature by understanding the role of informativeness gratification of the content generated by social media influencers in developing consumers' purchasing intention of the advertised products that information about products can help consumers in the steps of assessment and evaluation, especially if this information is about health benefits and nutrition facts that help customers make wise food choices [143]. Also, this study enriched the previous knowledge about the role of the attitude toward influencers in influencing the attitude and purchasing intention of the endorsed products confirming that relationships between consumers' attitudes toward NIs, consumers' attitudes toward FFs, and consumers' purchasing intention of FFs have existed as predicted

as there is a congruence between influencers and products. These findings extended the literature, as prior research has not examined whether such relationships are valid in the context of health-beneficial products such as FFs. Additionally, this study has extended the knowledge of TPB by investigating the association between the individuals' intention to perform a behavior and their actual behavior in the context of FFs buying behavior confirming that intention is a leading predictor of behavior. Finally, it concluded the moderating role of gender in this relationship, which was inconclusive in most prior literature [144].

Practical implications

The present research results allowed us to draw three main practical implications. First, this study has provided bearings for creating appropriate influencer marketing strategies for FFs via NIs that fit such products, applying influencer brand fit strategy that influences influencers' image and advertising's effectiveness [145]. This influencer marketing strategy relies on the gratifications presented by the NIs' generated content for customers impacting their attitudinal and intentional behavior toward FFs, which will help practitioners, such as marketers, and food retailers, to resolve the challenge of FFs market orientation and development via NIs that can serve as credible communication tools, delivering the beneficial health messages of FFs and inducing actual buying behavior. Second, the present research results have provided directions to NIs and social media influencers to enhance followers' attitudes toward them and the advertised products. This research suggests that NIs should improve the informativeness of their generated content by disseminating more valuable and up-to-date information about the advertised products. Also, they should develop exciting and enjoyable content and joyful status updates to enrich the content's entertainment value and improve the interactivity of their followers by generating socializing content that helps followers interact with each other. Third, the present research results help the practitioners by illustrating the role of information in purchasing decisions of FFs and identifying the gender differences in the association between purchase intention and actual buying behavior of FFs. This research suggests that NIs should clarify products' health claims, health benefits, and nutrition facts to influence consumers purchasing intention. Further, this research suggests that marketers should define the FFs market segment as different genders showing differences in selection and eating patterns resulting from the significant variance in attitude and behavior.

Limitations and future research

Although this study has interesting theoretical and practical implications, it has some limitations. First, this study focused only on Instagram and ignored other social media platforms nutrition influencers use, such as Facebook, Twitter, and YouTube. However, people's attitude toward digital communications varies across digital channels [111]. So future studies can consider cross-platform comparisons, and relevant conclusions can be drawn. Second, this study investigated only three main gratifications (entertainment, socializing, and informativeness) of the content generated by NIs. However, several studies about the gratifications of social media have investigated these three main gratifications plus other different gratifications such as trust and rewards [90], remunerative [91], empowerment, brand love [92], and incentive [93]. Accordingly, future studies can consider these other overlooked gratifications in future studies in the context of influencer marketing. Third, the accessibility to those Nutrition Instagrammers was very challenging. The author messaged 68 Nutrition Instagrammers. Accordingly, and due to not all elements being easy to access by the researcher, the researcher has redefined the population to be more manageable and a subset of the population [136]. The author targeted the Egyptians who follow the 19 Nutrition Instagrammers that have agreed to publish the online survey instrument in a story on their Instagram page. Further, the author increased the sample size to ensure that there were enough observations of the representative sample of the target population. Also, the stratified random sampling used in this research was disproportionate because the subjects drawn from each stratum were not proportionate to the elements in each stratum as the number of respondents came from each stratum (Nutrition Instagrammer) was not proportionate to the number of his or her followers. So, this makes findings cannot be generalizable to consumers in other countries and cultures, giving a research opportunity for other researchers to imitate this study in different countries that shows different health

consciousness, demographic and economic variables, affecting evaluation and attitudinal behavior toward FFs [7], [146].

References

[1] I. Anninou and G. R. Foxall, "Consumer decision-making for functional foods: insights from a qualitative study," *J. Consum. Mark.*, vol. 34, no. 7, pp. 552–565, 2017, doi: 10.1108/JCM-05-2016-1821.

[2] C. Karelakis, P. Zevgitis, K. Galanopoulos, and K. Mattas, "Consumer Trends and Attitudes to Functional Foods," *J. Int. Food Agribus. Mark.*, vol. 32, no. 3, pp. 266–294, 2020, doi: 10.1080/08974438.2019.1599760.

[3] I. Siró, E. Kápolna, B. Kápolna, and A. Lugasi, "Functional food. Product development, marketing and consumer acceptance-A review," *Appetite*, vol. 51, no. 3, pp. 456–467, 2008, doi: 10.1016/j.appet.2008.05.060.

[4] D. Herath, J. Cranfield, and S. Henson, "Who consumes functional foods and nutraceuticals in Canada?. Results of cluster analysis of the 2006 survey of Canadians' Demand for Food Products Supporting Health and Wellness," *Appetite*, vol. 51, no. 2, pp. 256–265, 2008, doi: 10.1016/j.appet.2008.02.018.

[5] E. Horská and K. Sparke, "Marketing attitudes towards the functional food and implications for market segmentation," *Agric. Econ.*, vol. 53, no. 8, pp. 349–353, 2007, doi: 10.17221/1148-agricecon.

[6] A. Annunziata and R. Vecchio, "Consumer perception of functional foods: A conjoint analysis with probiotics," *Food Qual. Prefer.*, vol. 28, no. 1, pp. 348–355, 2013, doi: 10.1016/j.foodqual.2012.10.009.

[7] G. Ares and A. Gámbaro, "Influence of gender, age and motives underlying food choice on perceived healthiness and willingness to try functional foods," *Appetite*, vol. 49, no. 1, pp. 148–158, 2007, doi: 10.1016/j.appet.2007.01.006.

[8] A. Krystallis, G. Maglaras, and S. Mamalis, "Motivations and cognitive structures of consumers in their purchasing of functional foods," *Food Qual. Prefer.*, vol. 19, no. 6, pp. 525–538, 2008, doi: 10.1016/j.foodqual.2007.12.005.

[9] E. L. O'Connor and K. M. White, "Willingness to trial functional foods and vitamin supplements: The role of attitudes, subjective norms, and dread of risks," *Food Qual. Prefer.*, vol. 21, no. 1, pp. 75–81, 2010, doi: 10.1016/j.foodqual.2009.08.004.

[10] G. Mccracken, "Culture Account the and of Consumption : A the Structure of and Meaning Theoretical Movement Goods of Cultural Consumer," *J. Consum. Res.*, vol. 13, no. 1, pp. 71–84, 1986, [Online]. Available: http://www.jstor.org/stable/2489287

[11] L. V. Casaló, C. Flavián, and S. Ibáñez-Sánchez, "Influencers on Instagram: Antecedents and consequences of opinion leadership," *J. Bus. Res.*, vol. 117, no. July, pp. 510–519, 2020, doi: 10.1016/j.jbusres.2018.07.005.

[12] E. Katz and D. Foulkes, "On the use of the mass media as 'escape': Clarification of a concept," *Public Opin. Q.*, vol. 26, no. 3, pp. 377–388, 1962, doi: 10.1086/267111.

[13] G. Shao, "Understanding the appeal of user-generated media: a uses and gratification perspective," *Internet Res.*, vol. 19, no. 1, pp. 7–25, 2009, doi: 10.1108/10662240910927795.

[14] I. M. Al-Jabri, M. S. Sohail, and N. O. Ndubisi, "Understanding the usage of global social networking sites by Arabs through the lens of uses and gratifications theory," *J. Serv. Manag.*, vol. 26, no. 4, pp. 662–680, 2015, doi: 10.1108/JOSM-01-2015-0037.

[15] M. A. Hossain, "Effects of uses and gratifications on social media use," *PSU Res. Rev.*, vol. 3, no. 1, pp. 16–28, 2019, doi: 10.1108/prr-07-2018-0023.

[16] C. H. Hsiao, J. J. Chang, and K. Y. Tang, "Exploring the influential factors in continuance usage of mobile social Apps: Satisfaction, habit, and customer value perspectives," *Telemat. Informatics*, vol. 33, no. 2, pp. 342–355, 2016, doi: 10.1016/j.tele.2015.08.014.

[17] A. Kraus, "Factors influencing the decisions to buy and consume functional food," *Br. Food J.*, vol. 117, no. 6, pp. 1622–1636, 2015, doi: 10.1108/BFJ-08-2014-0301.

[18] H. Mohamad, M. Mirosa, P. Bremer, and I. Oey, "A Qualitative Study of Malaysian Parents' Purchase Intention of Functional Weaning Foods using the Theory of Planned Behavior," *J. Food Prod. Mark.*, vol. 25, no. 2, pp. 187–206, 2019, doi: 10.1080/10454446.2018.1512919.

[19] V. G. Morwitz, J. H. Steckel, and A. Gupta, "When do purchase intentions predict sales?," *Int. J. Forecast.*, vol. 23, no. 3, pp. 347–364, 2007, doi: 10.1016/j.ijforecast.2007.05.015.

[20] A. C. Bemmaor, "Predicting Behavior from Intention-to-Buy Measures: The Parametric Case," *J. Mark. Res.*, vol. 32, no. 2, p. 176, 1995, doi: 10.2307/3152046.

[21] A. D. Lassen *et al.*, "Gender differences in purchase intentions and reasons for meal selection among fast food customers - Opportunities for healthier and more sustainable fast food," *Food Qual. Prefer.*, vol. 47, pp. 123–129, 2016, doi:

10.1016/j.foodqual.2015.06.011.

[22] A. Tandon, F. Jabeen, S. Talwar, M. Sakashita, and A. Dhir, "Facilitators and inhibitors of organic food buying behavior," *Food Qual. Prefer.*, vol. 88, p. 104077, 2021, doi: 10.1016/j.foodqual.2020.104077.

[23] L. Kotilainen, R. Rajalahti, C. Ragasa, and E. Pehu, "Agriculture and rural development discussion paper 30 health enhancing foods opportunities for strengthening the sector in developing countries," *Agric. Rural Dev.*, pp. 1–95, 2006, [Online]. Available: http://www.worldbank.org/rural

[24] M. B. Roberfroid, "Global view on functional foods: European perspectives," *Br. J. Nutr.*, vol. 88, no. S2, pp. S133–S138, 2002, doi: 10.1079/bjn2002677.

[25] S. M. Alzamora, D. Salvatori, M. S. Tapia, A. López-Malo, J. Welti-Chanes, and P. Fito, "Novel functional foods from vegetable matrices impregnated with biologically active compounds," *J. Food Eng.*, vol. 67, no. 1–2, pp. 205–214, 2005, doi: 10.1016/j.jfoodeng.2004.05.067.

[26] M. Niva, "'All foods affect health': Understandings of functional foods and healthy eating among health-oriented Finns," *Appetite*, vol. 48, no. 3, pp. 384–393, 2007, doi: 10.1016/j.appet.2006.10.006.

[27] J. A. Milner, "Functional foods and health: a US perspective," *Br. J. Nutr.*, vol. 88, no. S2, pp. S152–S158, 2002, doi: 10.1079/bjn2002680.

[28] M. F. Chen, "The joint moderating effect of health consciousness and healthy lifestyle on consumers' willingness to use functional foods in Taiwan," *Appetite*, vol. 57, no. 1, pp. 253–262, 2011, doi: 10.1016/j.appet.2011.05.305.

[29] N. Urala and L. Lähteenmäki, "Consumers' changing attitudes towards functional foods," *Food Qual. Prefer.*, vol. 18, no. 1, pp. 1–12, 2007, doi: 10.1016/j.foodqual.2005.06.007.

[30] H. Yu and J. Bogue, "Concept optimisation of fermented functional cereal beverages," *Br. Food J.*, vol. 115, no. 4, pp. 541–563, 2013, doi: 10.1108/00070701311317838.

[31] A. Büyükkaragöz, M. Bas, D. Sağlam, and Ş. E. Cengiz, "Consumers' awareness, acceptance and attitudes towards functional foods in Turkey," *Int. J. Consum. Stud.*, vol. 38, no. 6, pp. 628–635, 2014, doi: 10.1111/ijcs.12134.

[32] F. S. Ong, N. M. Kassim, O. S. Peng, and T. Singh, "Purchase behaviour of consumers of functional foods in Malaysia: An analysis of selected demographic variables, attitude and health status," *Asia Pacific Manag. Rev.*, vol. 19, no. 1, pp. 81–98, 2014, doi: 10.6126/APMR.2014.19.1.05.

[33] G. Rezai, P. K. Teng, Z. Mohamed, and M. N. Shamsudin, "Functional Food Knowledge and Perceptions among Young Consumers in Malaysia," *Int. J. Soc. Behav. Educ. Econ. Bus. Ind. Eng.*, vol. 6, no. 3, pp. 7–12, 2012.

[34] [34] I. Küster-Boluda and I. Vidal-Capilla, "Consumer attitudes in the election of functional foods," *Spanish J. Mark. - ESIC*, vol. 21, pp. 65–79, 2017, doi: 10.1016/j.sjme.2017.05.002.

[35] [35] G. Ares, A. Giménez, and R. Deliza, "Influence of three non-sensory factors on consumer choice of functional yogurts over regular ones," *Food Qual. Prefer.*, vol. 21, no. 4, pp. 361–367, 2010, doi: 10.1016/j.foodqual.2009.09.002.

[36] [36] E. X. Barrios, S. Bayarri, I. Carbonell, L. Izquierdo, and E. Costell, "Consumer attitudes and opinions toward functional foods: A focus group study," *J. Sens. Stud.*, vol. 23, no. 4, pp. 514–525, 2008, doi: 10.1111/j.1745-459X.2008.00169.x.

[37] [37] S. E. Jung, Y. H. Shin, K. Severt, and K. M. Crowe-White, "Determinants of a Consumer's Intention to Consume Antioxidant-infused Sugar-free Chewing Gum: Measuring Taste, Attitude, and Health Consciousness," *J. Food Prod. Mark.*, vol. 26, no. 1, pp. 38–54, 2020, doi: 10.1080/10454446.2020.1717712.

[38] [38] C. Chapple and F. Cownie, "An Investigation into Viewers' Trust in and Response Towards Disclosed Paid-for-Endorsements by YouTube Lifestyle Vloggers," *J. Promot. Commun.*, vol. 5, no. 2, pp. 110–136, 2017, [Online]. Available: http://promotionalcommunications.org/ind%0Ahttp://promotionalcommunications.org/index.php/pc/about/submissions

[39] [39] Y. Chetioui, I. Butt, A. Fathani, and H. Lebdaoui, "Organic food and Instagram health and wellbeing influencers: an emerging country's perspective with gender as a moderator," *Br. Food J.*, 2022, doi: 10.1108/BFJ-10-2021-1097.

[40] [40] I. Ajzen, "From Intentions to Actions: A Theory of Planned Behavior," *Action Control*, pp. 11–39, 1985, doi: 10.1007/978-3-642-69746-3_2.

[41] [41] S. Cazacu, K. Rotsios, and G. Moshonas, "Consumers' Purchase Intentions towards Water Buffalo Milk Products (WBMPs) in the Greater Area of Thessaloniki, Greece," *Procedia Econ. Financ.*, vol. 9, no. Ebeec 2013, pp. 407–416, 2014, doi: 10.1016/s2212-5671(14)00042-2.

[42] [42] J. A. Labrecque, M. Doyon, F. Bellavance, and J. Kolodinsky, "Acceptance of functional foods: A comparison of French, American, and French Canadian consumers," *Can. J. Agric. Econ.*, vol. 54, no. 4, pp. 647–661, 2006, doi: 10.1111/j.1744-7976.2006.00071.x.

[43] [43] B. T. Nystrand and S. O. Olsen, "Consumers' attitudes and intentions toward consuming functional foods in Norway," *Food Qual. Prefer.*, vol. 80, no. October 2019, 2020, doi: 10.1016/j.foodqual.2019.103827.

[44] [44] G. Rezai, P. Kit Teng, Z. Mohamed, and M. N. Shamsudin, "Structural Equation Modeling of Consumer Purchase Intention Toward Synthetic Functional Foods," *J. Food Prod. Mark.*, vol. 20, no. S1, pp. 13–34, 2014, doi: 10.1080/10454446.2014.921868.

[45] [45] Y. Hung, T. M. de Kok, and W. Verbeke, "Consumer attitude and purchase intention towards processed meat products with natural compounds and a reduced level of nitrite," *Meat Sci.*, vol. 121, pp. 119–126, 2016, doi: 10.1016/j.meatsci.2016.06.002.

[46] [46] R. A. McCleery, "Improving attitudinal frameworks to predict behaviors in human-wildlife conflicts," *Soc. Nat. Resour.*, vol. 22, no. 4, pp. 353–368, 2009, doi: 10.1080/08941920802064414.

[47] [47] W. Geyser, "What is Influencer Marketing? – The Ultimate Guide for 2023," *Influencer Marketing Hub*, 2023. https://influencermarketinghub.com/influencer-marketing/ (accessed Apr. 25, 2023).

[48] [48] J. Han and H. Chen, "Millennial social media users' intention to travel: the moderating role of social media influencer following behavior," *Int. Hosp. Rev.*, vol. ahead-of-p, no. ahead-of-print, 2021, doi: 10.1108/ihr-11-2020-0069.

[49] D. Brown and N. Hayes, *Influencer Marketing Who Really Influences Your Customers?*, 1st ed. UK: Elsevier, 2008.

[50] C. Lou and S. Yuan, "Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media," *J. Interact. Advert.*, vol. 19, no. 1, pp. 58–73, 2019, doi: 10.1080/15252019.2018.1533501.

[51] Y. Chetioui, H. Benlafqih, and H. Lebdaoui, "How fashion influencers contribute to consumers' purchase intention," *J. Fash. Mark. Manag.*, vol. 24, no. 3, pp. 361–380, 2020, doi: 10.1108/JFMM-08-2019-0157.

[52] F. M. Miller and C. T. Allen, "How does celebrity meaning transfer? Investigating the process of meaning transfer with celebrity affiliates and mature brands," *J. Consum. Psychol.*, vol. 22, no. 3, pp. 443–452, 2012, doi: 10.1016/j.jcps.2011.11.001.

[53] A. P. Schouten, L. Janssen, and M. Verspaget, "Celebrity vs. Influencer endorsements in advertising: the role of identification, credibility, and Product-Endorser fit," *Int. J. Advert.*, vol. 39, no. 2, pp. 258–281, 2020, doi: 10.1080/02650487.2019.1634898.

[54] S. Khamis, L. Ang, and R. Welling, "Self-branding, 'micro-celebrity' and the rise of Social Media Influencers," *Celebr. Stud.*, vol. 8, no. 2, pp. 191–208, 2017, doi: 10.1080/19392397.2016.1218292.

[55] M. A. Kamins, M. J. Brand, S. A. Hoeke, and J. C. Moe, "Two-sided versus one-sided celebrity endorsements: The impact on advertising effectiveness and credibility," *J. Advert.*, vol. 18, no. 2, pp. 4–10, 1989, doi: 10.1080/00913367.1989.10673146.

[56] A. Audrezet, G. de Kerviler, and J. Guidry Moulard, "Authenticity under threat: When social media influencers need to go beyond self-presentation," *J. Bus. Res.*, vol. 117, no. July, pp. 557–569, 2020, doi: 10.1016/j.jbusres.2018.07.008.

[57] A. McFarlane and E. Samsioe, "#50+ fashion Instagram influencers: cognitive age and aesthetic digital labours," *J. Fash. Mark. Manag.*, vol. 24, no. 3, pp. 399–413, 2020, doi: 10.1108/JFMM-08-2019-0177.

[58] P. Quelhas-Brito, A. Brandão, M. Gadekar, and S. Castelo-Branco, "Diffusing fashion information by social media fashion influencers: understanding antecedents and consequences," *J. Fash. Mark. Manag.*, vol. 24, no. 2, pp. 137–152, 2020, doi: 10.1108/JFMM-09-2019-0214.

[59] Z. Shen, "A persuasive eWOM model for increasing consumer engagement on social media: evidence from Irish fashion micro-influencers," *J. Res. Interact. Mark.*, vol. 15, no. 2, pp. 181–199, 2021, doi: 10.1108/JRIM-10-2019-0161.

[60] C. Schwemmer and S. Ziewiecki, "Social Media Sellout: The Increasing Role of Product Promotion on YouTube," *Soc. Media Soc.*, vol. 4, no. 3, 2018, doi: 10.1177/2056305118786720.

[61] F. Femenia-serra and U. Gretzel, *Information and Communication Technologies in Tourism 2020*, vol. 1. Springer International Publishing, 2020. doi: 10.1007/978-3-030-36737-4.

[62] W. Jang, J. Kim, S. Kim, and J. W. Chun, "The role of engagement in travel influencer marketing: the perspectives of dual process theory and the source credibility model," *Curr. Issues Tour.*, vol. 24, no. 17, pp. 2416–2420, 2021, doi: 10.1080/13683500.2020.1845126.

[63] M. M. Mariani, M. Ek Styven, and R. Nataraajan, "Social comparison orientation and frequency: A study on international travel bloggers," *J. Bus. Res.*, vol. 123, no. September 2020, pp. 232–240, 2021, doi: 10.1016/j.jbusres.2020.09.070.

[64] [64] A. E. Coates, C. A. Hardman, J. C. G. Halford, P. Christiansen, and E. J. Boyland, "The effect of influencer marketing of food and a 'protective' advertising disclosure on children's food intake," *Pediatr. Obes.*, vol. 14, no. 10, pp. 1–9, 2019, doi: 10.1111/ijpo.12540.

[65] [65] F. Folkvord, E. Roes, and K. Bevelander, "Promoting healthy foods in the new digital era on Instagram: an experimental study on the effect of a popular real versus fictitious fit influencer on brand attitude and purchase

intentions," *BMC Public Health*, vol. 20, no. 1, pp. 1–8, 2020, doi: 10.1186/s12889-020-09779-y.

[66] [66] C. R. Smit, L. Buijs, T. J. van Woudenberg, K. E. Bevelander, and M. Buijzen, "The Impact of Social Media Influencers on Children's Dietary Behaviors," *Front. Psychol.*, vol. 10, no. January, pp. 1–6, 2020, doi: 10.3389/fpsyg.2019.02975.

[67] [67] G. Kostygina *et al.*, "Boosting Health Campaign Reach and Engagement Through Use of Social Media Influencers and Memes," *Soc. Media Soc.*, vol. 6, no. 2, 2020, doi: 10.1177/2056305120912475.

[68] [68] K. Pilgrim and S. Bohnet-Joschko, "Selling health and happiness how influencers communicate on Instagram about dieting and exercise: Mixed methods research," *BMC Public Health*, vol. 19, no. 1, pp. 1–9, 2019, doi: 10.1186/s12889-019-7387-8.

[69] [69] D. Belanche, M. Flavián, and S. Ibáñez-Sánchez, "Followers' reactions to influencers' Instagram posts," *Spanish J. Mark. - ESIC*, vol. 24, no. 1, pp. 37–54, 2020, doi: 10.1108/SJME-11-2019-0100.

[70] [70] X. Chen and A. Y. K. Chua, "Reviewing the Landscape of Research on Influencer-generated Content," *2020 6th IEEE Int. Conf. Inf. Manag. ICIM 2020*, pp. 244–248, 2020, doi: 10.1109/ICIM49319.2020.244706.

[71] [71] S. KEMP, "Instagram users in Egypt in 2023," *DATAREPORTAL*, 2023. https://datareportal.com/reports/digital-2023-egypt (accessed Jun. 13, 2023).

[72] [72] S. V. Jin, A. Muqaddam, and E. Ryu, "Instafamous and social media influencer marketing," *Mark. Intell. Plan.*, vol. 37, no. 5, pp. 567–579, 2019, doi: 10.1108/MIP-09-2018-0375.

[73] [73] E. Djafarova and C. Rushworth, "Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users," *Comput. Human Behav.*, vol. 68, pp. 1–7, 2017, doi: 10.1016/j.chb.2016.11.009.

[74] [74] D. L. Swanson, "Understanding audiences: Continuing contributions of gratifications research," *Poetics*, vol. 21, no. 4, pp. 305–328, 1992, doi: 10.1016/0304-422X(92)90011-Q.

[75] [75] S. O'Donohoe, "Advertising Uses and Gratifications," *Eur. J. Mark.*, vol. 28, no. 8/9, pp. 52–75, 1994, doi: 10.1108/03090569410145706.

[76] [76] N. Athwal, D. Istanbulluoglu, and S. E. McCormack, "The allure of luxury brands' social media activities: a uses and gratifications perspective," *Inf. Technol. People*, vol. 32, no. 3, pp. 603–626, 2019, doi: 10.1108/ITP-01-2018-0017.

[77] [77] M. Bruhn, V. Schoenmueller, D. B. Schäfer, D. E. Schultz, and J. Peltier, "Journal of Research in Interactive Marketing," *J. Res. Interact. Mark. Mark.*, vol. 7, no. 17, pp. 328–344, 2014, [Online]. Available: http://dx.doi.org/10.1108/JRIM-12-2012-0054%5Cnhttp://dx.doi.org/10.1108/MIP-04-2013-0056%5Cnhttp://

[78] [78] R. Dolan, C. Frethey-bentham, J. Fahy, and S. Goodman, "Social media engagement behavior social media content," vol. 53, no. 10, pp. 2213–2243, 2019, doi: 10.1108/EJM-03-2017-0182.

[79] [79] B. Florenthal, "Applying uses and gratifications theory to students' LinkedIn usage," *Young Consum.*, vol. 16, no. 1, pp. 17–35, 2015, doi: 10.1108/YC-12-2013-00416.

[80] K. K. W. Ho and E. W. K. See-To, "The impact of the uses and gratifications of tourist attraction fan page," *Internet Res.*, vol. 28, no. 3, pp. 587–603, 2018, doi: 10.1108/IntR-04-2017-0175.

[81] S. Lee and B. G. Kim, "The impact of qualities of social network service on the continuance usage intention," *Manag. Decis.*, vol. 55, no. 4, pp. 701–729, 2017, doi: 10.1108/MD-10-2016-0731.

[82] Y. Li, S. Yang, S. Zhang, and W. Zhang, "Mobile social media use intention in emergencies among Gen Y in China: An integrative framework of gratifications, task-technology fit, and media dependency," *Telemat. Informatics*, vol. 42, p. 101244, 2019, doi: 10.1016/j.tele.2019.101244.

[83] E. Katz, J. G. Blumler, and M. Gurevitch, "Uses and Gratification Theory Research," *Am. Assoc. Public Opin. Res.*, vol. 37, no. 4, pp. 509–523, 1974.

[84] H. Kim, "Unpacking Unboxing Video-Viewing Motivations: The Uses and Gratifications Perspective and the Mediating Role of Parasocial Interaction on Purchase Intent," *J. Interact. Advert.*, vol. 20, no. 3, pp. 196–208, 2020, doi: 10.1080/15252019.2020.1828202.

[85] F. A. Al-Emadi and I. Ben Yahia, "Ordinary celebrities related criteria to harvest fame and influence on social media," *J. Res. Interact. Mark.*, vol. 14, no. 2, pp. 195–213, 2020, doi: 10.1108/JRIM-02-2018-0031.

[86] Y. A. Argyris, Z. Wang, Y. Kim, and Z. Yin, "The effects of visual congruence on increasing consumers' brand engagement: An empirical investigation of influencer marketing on instagram using deep-learning algorithms for automatic image classification," *Comput. Human Behav.*, vol. 112, no. June, p. 106443, 2020, doi: 10.1016/j.chb.2020.106443.

[87] M. Fink, M. Koller, J. Gartner, A. Floh, and R. Harms, "Effective entrepreneurial marketing on Facebook – A longitudinal study," *J. Bus. Res.*, vol. 113, no. September 2018, pp. 149–157, 2020, doi: 10.1016/j.jbusres.2018.10.005.

[88] S. V. Jin and E. Ryu, "Instagram fashionistas, luxury visual image strategies and vanity," *J. Prod. Brand Manag.*, vol. 29, no. 3, pp. 355–368, 2020, doi: 10.1108/JPBM-08-2018-1987.

[89] C. S. Lee and L. Ma, "News sharing in social media: The effect of gratifications and prior experience," *Comput. Human Behav.*, vol. 28, no. 2, pp. 331–339, 2012, doi: 10.1016/j.chb.2011.10.002.

[90] S. L. Azar, J. C. Machado, L. Vacas-De-Carvalho, and A. Mendes, "Motivations to interact with brands on Facebook - Towards a typology of consumer-brand interactions," *J. Brand Manag.*, vol. 23, no. 2, pp. 153–178, 2016, doi: 10.1057/bm.2016.3.

[91] R. Dolan, J. Conduit, J. Fahy, and S. Goodman, "Social media engagement behaviour: a uses and gratifications perspective," *J. Strateg. Mark.*, vol. 24, no. 3–4, pp. 261–277, 2016, doi: 10.1080/0965254X.2015.1095222.

[92] L. Vale and T. Fernandes, "Social media and sports: driving fan engagement with football clubs on Facebook," *J. Strateg. Mark.*, vol. 26, no. 1, pp. 37–55, 2018, doi: 10.1080/0965254X.2017.1359655.

[93] F. Kujur and S. Singh, "Engaging customers through online participation in social networking sites," *Asia Pacific Manag. Rev.*, vol. 22, no. 1, pp. 16–24, 2017, doi: 10.1016/j.apmrv.2016.10.006.

[94] F. Hesham, H. Riadh, and N. K. Sihem, "What have we learned about the effects of the covid-19 pandemic on consumer behavior?," *Sustain.*, vol. 13, no. 8, 2021, doi: 10.3390/su13084304.

[95] H. Ko, C. H. Cho, and M. S. Roberts, "Internet uses and gratifications: A structural equation model of interactive advertising," *J. Advert.*, vol. 34, no. 2, pp. 57–70, 2005, doi: 10.1080/00913367.2005.10639191.

[96] H. H. Chang, H. Rizal, and H. Amin, "The determinants of consumer behavior towards email advertisement," *Internet Res.*, vol. 23, no. 3, pp. 316–337, 2013, doi: 10.1108/10662241311331754.

[97] [97] G. Bennett, M. Ferreira, Y. Tsuji, R. Siders, and B. Cianfrone, "Analysing the effects of advertising type and antecedents on attitude towards advertising in sport," *Int. J. Sport. Mark. Spons.*, vol. 8, no. 1, pp. 56–75, 2006, doi: 10.1108/ijsms-08-01-2006-b008.

[98] [98] F.-H. Lin and Y.-F. Hung, "The Value of and Attitude toward Sponsored Links for Internet Information Searchers," *J. Electron. Commer. Res.*, vol. 10, no. 4, p. 235, 2009.

[99] [99] K. Logan, "And now a word from our sponsor: Do consumers perceive advertising on traditional television and online streaming video differently?," *J. Mark. Commun.*, vol. 19, no. 4, pp. 258–276, 2013, doi: 10.1080/13527266.2011.631568.

[100] [100] C. Blanco, M. Blasco, and I. Azorín, "Entertainment and Informativeness as Precursory Factors of Successful Mobile Advertising Messages," *Commun. IBIMA*, vol. 2010, pp. 1–10, 2010, doi: 10.5171/2010.130147.

[101] [101] M. M. Tsang, S. C. Ho, and T. P. Liang, "Consumer attitudes toward mobile advertising: An empirical study," *Int. J. Electron. Commer.*, vol. 8, no. 3, pp. 65–78, 2004, doi: 10.1080/10864415.2004.11044301.

[102] [102] H. Xu, L. Bin Oh, and H. H. Teo, "Perceived effectiveness of text vs. multimedia Location-Based Advertising messaging," *Int. J. Mob. Commun.*, vol. 7, no. 2, pp. 154–177, 2009, doi: 10.1504/IJMC.2009.022440.

[103] [103] S. Dix, G. Ferguson, K. Logan, L. F. Bright, and H. Gangadharbatla, "Facebook versus television: Advertising value perceptions among females," *J. Res. Interact. Mark.*, vol. 6, no. 3, pp. 164–179, 2012, doi: 10.1108/17505931211274651.

[104] [104] E. Murillo, M. Merino, and A. Núñez, "O valor propagandístico dos anúncios (Ads) no Twitter: Um estudo entre a geração do milênio mexicana," *Rev. Bras. Gest. Negocios*, vol. 18, no. 61, pp. 436–456, 2016, doi: 10.7819/rbgn.v18i61.2471.

[105] [105] W. Shao and M. Ross, "Testing a conceptual model of Facebook brand page communities," *J. Res. Interact. Mark.*, vol. 9, no. 3, pp. 239–258, 2015, doi: 10.1108/JRIM-05-2014-0027.

[106] [106] H. C. Ko and D. H. Yu, "Understanding continuance intention to view instagram stories: A perspective of uses and gratifications theory," *ACM Int. Conf. Proceeding Ser.*, pp. 127–132, 2019, doi: 10.1145/3341016.3341039.

[107] [107] M. De Veirman, V. Cauberghe, and L. Hudders, "Marketing through instagram influencers: The impact of number of followers and product divergence on brand attitude," *Int. J. Advert.*, vol. 36, no. 5, pp. 798–828, 2017, doi: 10.1080/02650487.2017.1348035.

[108] [108] Y. W. Ha, M. C. Park, and E. Lee, "A framework for mobile SNS advertising effectiveness: User perceptions and behaviour perspective," *Behav. Inf. Technol.*, vol. 33, no. 12, pp. 1333–1346, 2014, doi: 10.1080/0144929X.2014.928906.

[109] [109] C. L. E. Liu, R. R. Sinkovics, N. Pezderka, and P. Haghirian, "Determinants of Consumer Perceptions toward Mobile Advertising - A Comparison between Japan and Austria," *J. Interact. Mark.*, vol. 26, no. 1, pp. 21–32, 2012, doi: 10.1016/j.intmar.2011.07.002.

[110] [110] M. Jamalzadeh, N. Behravan, and R. Masoudi, "International review of management and marketing.," *Int. Rev. Manag. Mark.*, vol. 2, no. 3, pp. 130–138, 2012, [Online]. Available:

http://econjournals.com/index.php/irmm/article/view/214/pdf

[111] [111] Y. Gvili and S. Levy, "Antecedents of attitudes toward eWOM communication: differences across channels," *Internet Res.*, vol. 26, no. 5, pp. 1030–1051, 2016, doi: 10.1108/IntR-08-2014-0201.

[112] [112] D. H. Silvera and B. Austad, "Factors predicting the effectiveness of celebrity endorsement advertisements," *Eur. J. Mark.*, vol. 38, no. 11/12, pp. 1509–1526, 2004, doi: 10.1108/03090560410560218.

[113] [113] P. Torres, M. Augusto, and M. Matos, "Antecedents and outcomes of digital influencer endorsement: An exploratory study," *Psychol. Mark.*, vol. 36, no. 12, pp. 1267–1276, 2019, doi: 10.1002/mar.21274.

[114] [114] M. Asif, W. Xuhui, A. Nasiri, and S. Ayyub, "Determinant factors influencing organic food purchase intention and the moderating role of awareness: A comparative analysis," *Food Qual. Prefer.*, vol. 63, pp. 144–150, 2018, doi: 10.1016/j.foodqual.2017.08.006.

[115] [115] N. G. Carrión Bósquez, L. G. Arias-Bolzmann, and A. K. Martínez Quiroz, "The influence of price and availability on university millennials' organic food product purchase intention," *Br. Food J.*, 2022, doi: 10.1108/BFJ-12-2021-1340.

[116] [116] B. Loera, B. Murphy, A. Fedi, M. Martini, N. Tecco, and M. Dean, "Understanding the purchase intentions for organic vegetables across EU: a proposal to extend the TPB model," *Br. Food J.*, vol. 124, no. 12, pp. 4736–4754, 2022, doi: 10.1108/BFJ-08-2021-0875.

[117] [117] P. Rustagi and A. Prakash, "Review on Consumer'S Attitude & Purchase Behavioral Intention Towards Green Food Products," *Int. J. Health Sci. (Qassim).*, vol. 6, no. May 2022, pp. 9257–9273, 2022, doi: 10.53730/ijhs.v6ns1.7092.

[118] [118] Y. Su, A. Khaskheli, S. A. Raza, and S. Q. Yousufi, "How health consciousness and social consciousness affect young consumers purchase intention towards organic foods," *Manag. Environ. Qual. An Int. J.*, vol. 33, no. 5, pp. 1249–1270, 2022, doi: 10.1108/MEQ-12-2021-0279.

[119] [119] X. J. Lim, A. R. bt Mohd Radzol, J.-H. (Jacky) Cheah, and M. W. Wong, "The Impact of Social Media Influencers on Purchase Intention and the Mediation Effect of Customer Attitude," *Asian J. Bus. Res.*, vol. 7, no. 2, pp. 19–36, 2017, doi: 10.14707/ajbr.170035.

[120] [120] M. Pick, "Psychological ownership in social media influencer marketing," *Eur. Bus. Rev.*, 2020, doi: 10.1108/EBR-08-2019-0165.

[121] [121] J. Magano, M. Au-Yong-oliveira, C. E. Walter, and Â. Leite, "Attitudes toward Fashion Influencers as a Mediator of Purchase Intention," *Inf.*, vol. 13, no. 6, pp. 1–16, 2022, doi: 10.3390/info13060297.

[122] [122] P. Kotler, K. L. Keller, F. Ancarani, and V. W. Costabile, *Marketing management*, 14th ed. Boston: Pearson, 2014.

[123] [123] M. T. Adjei, S. M. Noble, and C. H. Noble, "The influence of C2C communications in online brand communities on customer purchase behavior," *J. Acad. Mark. Sci.*, vol. 38, no. 5, pp. 634–653, 2010, doi: 10.1007/s11747-009-0178-5.

[124] [124] J. M. Wills, S. Storcksdieck Genannt Bonsmann, M. Kolka, and K. G. Grunert, "Symposium 2: Nutrition and health claims: Help or hindrance: European consumers and health claims: Attitudes, understanding and purchasing behaviour," *Proc. Nutr. Soc.*, vol. 71, no. 2, pp. 229–236, 2012, doi: 10.1017/S0029665112000043.

[125] [125] E. Van Kleef, H. C. M. Van Trijp, and P. Luning, "Functional foods: Health claim-food product compatibility and the impact of health claim framing on consumer evaluation," *Appetite*, vol. 44, no. 3, pp. 299–308, 2005, doi: 10.1016/j.appet.2005.01.009.

[126] [126] P. Williams and D. Ghosh, "Health claims and functional foods," *Nutr. Diet.*, vol. 65, no. SUPPL. 3, pp. 89–93, 2008, doi: 10.1111/j.1747-0080.2008.00268.x.

[127] [127] M. Fishbein and I. Ajzen, *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley, 1975.

[128] [128] N. Aungatichart, A. Fukushige, and M. Aryupong, "Mediating role of consumer identity between factors influencing purchase intention and actual behavior in organic food consumption in Thailand," *Pakistan J. Commer. Soc. Sci.*, vol. 14, no. 2, pp. 429–449, 2020.

[129] [129] A. M. Bashir, A. Bayat, S. O. Olutuase, and Z. A. Abdul Latiff, "Factors affecting consumers' intention towards purchasing halal food in South Africa: a structural equation modelling," *J. Food Prod. Mark.*, vol. 25, no. 1, pp. 26–48, 2019, doi: 10.1080/10454446.2018.1452813.

[130] [130] Y. Khan, I. Hameed, and U. Akram, "What drives attitude, purchase intention and consumer buying behavior toward organic food? A self-determination theory and theory of planned behavior perspective," *Br. Food J.*, 2022, doi: 10.1108/BFJ-07-2022-0564.

[131] [131] S. Li and N. S. Jaharuddin, "Identifying the key purchase factors for organic food among Chinese

consumers," *Front. Bus. Res. China*, vol. 14, no. 1, 2020, doi: 10.1186/s11782-020-00093-3.

[132] [132] Y. H. Shin, S. E. Jung, J. Im, and K. Severt, "Applying an extended theory of planned behavior to examine state-branded food product purchase behavior: The moderating effect of gender," *J. Foodserv. Bus. Res.*, vol. 23, no. 4, pp. 358–375, 2020, doi: 10.1080/15378020.2020.1770043.

[133] [133] A. Beardsworth, A. Bryman, T. Keil, J. Goode, C. Haslam, and E. Lancashire, "Women, men and food: The significance of gender for nutritional attitudes and choices," *Br. Food J.*, vol. 104, no. 7, pp. 470–491, 2002, doi: 10.1108/00070700210418767.

[134] [134] H. R. Gaber, L. T. Wright, and K. Kooli, "Consumer attitudes towards Instagram advertisements in Egypt: The role of the perceived advertising value and personalization," *Cogent Bus. Manag.*, vol. 6, no. 1, pp. 1–13, 2019, doi: 10.1080/23311975.2019.1618431.

[135] [135] R. W. Brislin, "The wording and translation of research instruments," in *Field methods in cross-cultural research*, W. J. Lonner and J. W. Berry, Eds., Newbury Park, CA.: Sage Publications, 1986, pp. 137–164.

[136] [136] M. N. K. Saunders, P. Lewis, and A. Thornhill, *Research Methods for Business Students*, 8TH ed. Harlow: Pearson Education, 2019.

[137] [137] J. F. Hair, M. Sarstedt, C. M. Ringle, and S. P. Gudergan, *Advanced Issues in Partial Least Squares Structural Equation Modeling*. Los Angeles: Sage Publications, 2017.

[138] [138] J. F. Hair, W. C. Black, and B. J. Babin, *Multivariate Data Analysis: A Global Perspective*. New Jersey: Pearson, 2010.

[139] [139] C. Fornell and D. F. Larcker, "Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and.pdf," vol. XVIII, no. February, pp. 39–50, 1981.

[140] [140] R. M. Baron and D. A. Kenny, "The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations," *J. Pers. Soc. Psychol.*, vol. 51, no. 6, pp. 1173–1182, 1986.

[141] [141] Y. H. Lin, C. H. Fang, and C. L. Hsu, "Determining uses and gratifications for mobile phone apps," *Lect. Notes Electr. Eng.*, vol. 309 LNEE, pp. 661–668, 2014, doi: 10.1007/978-3-642-55038-6_103.

[142] [142] D. G. Taylor, J. E. Lewin, and D. Strutton, "Friends, Fans, and Followers: Do Ads Work on Social Networks?," *J. Advert. Res.*, vol. 51, no. 1, pp. 258–275, 2011, doi: 10.2501/jar-51-1-258-275.

[143] [143] O. B. Bu and A. S. Go, "Perceived trustworthiness of online shops," *J. Consum. Behav.*, vol. 50, no. October, pp. 35–50, 2008, doi: 10.1002/cb.

[144] [144] N. López-Mosquera, "Gender differences, theory of planned behavior and willingness to pay," *J. Environ. Psychol.*, vol. 45, pp. 165–175, 2016, doi: 10.1016/j.jenvp.2016.01.006.

[145] [145] P. L. Breves, N. Liebers, M. Abt, and A. Kunze, "The perceived fit between instagram influencers and the endorsed brand: How influencer–brand fit affects source credibility and persuasive effectiveness," *J. Advert. Res.*, vol. 59, no. 4, pp. 440–454, 2019, doi: 10.2501/JAR-2019-030.

[146] [146] E. S. T. Wang and Y. H. Chu, "Influence of Consumer's Long-term Orientation and Safety Consciousness on Intention to Repurchase Certified Functional Foods," *J. Food Prod. Mark.*, vol. 26, no. 4, pp. 247–261, 2020, doi: 10.1080/10454446.2020.1757554.

[147] [147] R. H. Ducoffe, "How consumers assess the value of advertising," *J. Curr. Issues Res. Advert.*, vol. 17, no. 1, pp. 1–18, 1995, doi: 10.1080/10641734.1995.10505022.

[148] [148] A. D. Smock, N. B. Ellison, C. Lampe, and D. Y. Wohn, "Facebook as a toolkit: A uses and gratification approach to unbundling feature use," *Comput. Human Behav.*, vol. 27, no. 6, pp. 2322–2329, 2011, doi: 10.1016/j.chb.2011.07.011.

[149] [149] A. Tudoran, S. O. Olsen, and D. C. Dopico, "The effect of health benefit information on consumers health value, attitudes and intentions," *Appetite*, vol. 52, no. 3, pp. 568–579, 2009, doi: 10.1016/j.appet.2009.01.009.

[150] [150] L. Xin and S. Seo, "The role of consumer ethnocentrism, country image, and subjective knowledge in predicting intention to purchase imported functional foods," *Br. Food J.*, vol. 122, no. 2, pp. 448–464, 2020, doi: 10.1108/BFJ-05-2019-0326.

[151] [151] A. Humaira and H. Hudrasyah, "Factors Influencing the Intention To Purchase and Actual Purchase Behavior of Organic Food," *J. Bus. Manag.*, vol. 5, no. 4, pp. 581–596, 2016.

[152] [152] A. Singh and P. Verma, "Factors influencing Indian consumers' actual buying behaviour towards organic food products," *J. Clean. Prod.*, vol. 167, pp. 473–483, 2017, doi: 10.1016/j.jclepro.2017.08.106.