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The digitalization of social influence practices in Morocco and its effect on attitudinal change and purchase behavioral intention

La digitalización de las prácticas de influencia social en Marruecos y su efecto en el cambio de actitudes y la intención de comportamiento de compra

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ABSTRACT

The phenomenon of digital influencers considered as electronic opinion leaders is proving to be a relevant practice adapted to the current context of digital transformation.

The aim of this research work is to shed light on the various theories mobilized to study the effect of social influence via digital channels on the attitudinal change and purchasing behavioral intention of Moroccan consumers, in order to clarify the role of the digital influencer by focusing on the issues of credibility, authenticity and homophily of this social connector, and by showing the contribution of the quality of the content disseminated in the involvement and commitment of the virtual community following the para-social interaction established via social networks.

The original aspect of this research lies in the interdisciplinary specificity of two distinct but complementary approaches combining the theories of social psychology and those of consumer behavior through a research methodology based on descriptive methods supported by documentary analysis techniques.

Keywords: Digital Social Influence; Credibility; Authenticity; Attitudinal Change; Purchase Behavioral Intention.

RESUMEN

El fenómeno de los influencers digitales considerados como líderes de opinión electrónicos está demostrando ser una práctica relevante adaptada al contexto actual de transformación digital.

El objetivo de este trabajo de investigación es arrojar luz sobre las diversas teorías movilizadas para estudiar el efecto de la influencia social a través de canales digitales en el cambio de actitudes y la intención de compra de los consumidores marroquíes, con el fin de clarificar el papel del influencer digital enfocándose en las cuestiones de credibilidad, autenticidad y homofilia de este conector social, y mostrando la contribución de la calidad del contenido difundido en el compromiso y la implicación de la comunidad virtual que sigue la interacción parasocial establecida a través de las redes sociales.

El aspecto original de esta investigación radica en la especificidad interdisciplinaria de dos enfoques distintos pero complementarios que combinan las teorías de la psicología social y las del comportamiento del consumidor, mediante una metodología de investigación basada en métodos descriptivos apoyados por técnicas de análisis documental.

Palabras clave: Influencia Social Digital; Credibilidad; Autenticidad; Cambio Actitudinal; Intención de Comportamiento de Compra.

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INTRODUCTION

The era of digital transformation has given rise to the use of social networks, and these digital channels have become a major necessity in a fully connected environment. In this context of advanced numerization, the phenomenon of social influence has arisen in a digitized form. Transcending geographical and cultural boundaries, it has brought about a shift in beliefs and practices, increased the possibilities for interpersonal communication and metamorphosed the way people communicate, interact and manage their relationships.

This new context, characterized by exponential digital dynamism, has changed the behavior of the Moroccan consumer. His or her level of expectation has increased, and he or she is beginning to demand more personalization, originality, interactivity, transparency and authenticity, all of which will require meticulous support. This has given rise to a new character on social networks: the influencer. This content creator, described as an "opinion leader", has been able to forge a solid relationship with his virtual community, united around inspiring, innovative and relevant content. This social connector uses his online presence to inspire, persuade, raise awareness and shape opinions, beliefs, mentalities and consequently attitudes and purchasing intentions. The majority of scientific research into influence marketing has focused on the commercial and financial aspects, and their impact on corporate reputation, performance and competitiveness. To fill this gap, the present research aims to shed light on the social aspect, which has not been frequently discussed in the existing literature. The motivations can be summed up in the promotion of the relevant use of social networks through the encouragement of high value-added content, the generalization of digital culture in Morocco and the encouragement of professional maturity in this sector through the specialization of its players and the formalization of the status of the influencer by law.

This problematic aims to demonstrate the role of the digital influencer in raising awareness, mobilizing, activism and building involved and committed communities in a Moroccan context in order to introduce a change in mentalities, beliefs and attitudes by answering the following central question:

To what extent can the characteristics of the social influencer and his or her shared content contribute to attitudinal change and consumer purchase intention?

This central question can be broken down into sub-questions:

- What is an influencer's role on social media?
- What are the attributes that ensure the trust established between them and their followers?
- What are the characteristics of shared content that enable it to be persuasive and influential?

• How important is the engagement and involvement of the virtual community in changing their attitude and buying behavior?

General considerations about the digital influencer

Definitions of Digital Influencers

In a complex media environment, social media have become accessible and popular communication tools, and have democratized influencer activity to the point of establishing influencer status.

Perceived as experts and trusted sources sharing intimate and authentic information with their followers, these influencers are able to attract a solid base of subscribers and have a stronger impact on their decision making. It is therefore essential to analyze the profile of this electronic opinion leader.

Table 1. Definitions of Digital Influencers	
Definitions of the Digital Influencer	Authors
« Influencers are trusted individuals with a large number of followers on social media ».	(1)
« Influencers are opinion leaders on social networks who receive information about products and services and try them out before anyone else. »	(2)
To be considered an influencer, two central characteristics are necessary: reach and impact.	(3)
« Influencers provide their followers with content related to their personal and daily lives, as well as an insight into their experiences and opinions ».	(4)

All these definitions converge and suggest that influencers are ordinary people, who have gained notoriety by using various social media to achieve a privileged social status with their communities. They have succeeded in building up a large community by producing quality, high value-added content and helping to change their subscribers' attitudes and consequently their behavior.

The Influencer's Prescriptive Role in Social Media

Digital influencers are considered the new generation of opinion leaders. They have the ability to change,

modify and transform public opinion because they are not only well-informed, but also highly respected for their expertise, skills and experience.⁽⁵⁾ Through their presence on primary and secondary social media such as blogs, vlogs on You Tube or reals and stories on Instagram, they have been able to develop close and strong relationships in the virtual world while exerting influence on their community through creation and sharing content, interaction and their appearance on the Web ».⁽⁶⁾

In the context of the expansion of persuasive online communication channels, the influencer is a message mediator who plays a crucial prescriptive role with his virtual community, helping to change the beliefs, mindsets and attitudes of his followers. His power of conviction is based on his credibility, which is linked to his authenticity, integrity, honesty, professional expertise and experience, while his power of attraction is defined by his sympathy, familiarity and closeness to his community through regular virtual contacts and posted publications. In this way, he reinforces his "social visibility" with his "media visibility" to become more popular.

The Dimensions of Digital Influencer Effectiveness

Source Attributes

The influencer is an inescapable component, and will be addressed by highlighting a set of attributes that determine his impact on his virtual community.

Credibility and its levers

A credible source is one that is reputed to provide accurate, verifiable and truthful information. In the online context, judging an influencer's perceived credibility is a multidimensional concept and an essential condition for ensuring a message's persuasiveness and acceptance (Pollach, 2008). It is based on three components: expertise, reliability and physical and social attractiveness.

The Expertise : Refers to a person's knowledge, experience, skills and qualifications in a given field.^(7,8) asserted that expertise has a positive effect on attitudes and purchase intention.

The Reliability : Integrates 5 dimensions: integrity, accuracy, honesty, sincerity and trustworthiness.⁽⁷⁾

Physical and Social Attractiveness :According to ⁽⁹⁾ « attractiveness is defined as the perceived social value of the source, such as physical appearance, personality, social status or similarity to the recipient ».

For ⁽¹⁰⁾ « While physical attractiveness evokes attraction to appearance, social attractiveness inspires the desire to establish a social relationship by ensuring closeness, intimacy and friendship ». In addition, social attractiveness encompasses intellectual skills, personality and lifestyle ⁽¹¹⁾ and refers to a desired bond of affiliation with someone else; socially attractive people are perceived as likeable, friendly and pleasant.⁽⁹⁾ In summary, influencers need a sustained level of expertise, reliability and physical and social attractiveness to generate persuasive messages and enhance their perceived credibility in the eyes of their followers on social media.⁽¹²⁾

Para-Social Interaction

Influencers have a popularity based on feelings of connection and reciprocal reactivity with their audience, known as para-social interaction. Influencers cultivate this affective bond of proximity through the sincere sharing of aspects of their daily lives ⁽¹³⁾ or through the behavior and personality they convey through social networks.

Perceived Homophily

Homophily is « the degree of similarity or congruence between two people, whether in terms of beliefs, education or social status »,⁽¹⁴⁾ it's a factor that facilitates persuasion and increases the effectiveness of communication between two parties, as they will find themselves around a common value system. What's more, similar people inspire trust and attachment. Thus, the homophily between the communicative source and the receiver, given its fluidity, generates attraction, facilitates interpersonal relations, intensifies affective relationships and makes more connections and interactions possible.⁽¹⁵⁾

Trust

Refers to the perception of recipients that the source provides true, fair and sincere information. By relying on a trustworthy source, the message conveyed will be more effective and the subscriber will be influenced and perceive it as more credible.⁽⁷⁾ In the digital context, trust is conceptualized in three dimensions: competence, integrity and benevolence. Competence reveals the influencer's expertise and qualifications, and refers to his or her ability to share content that is relevant and specialized to his or her field. Integrity refers to reliability, and benevolence refers to the influencer's interest in subscribers and willingness to provide solutions to problems encountered by his or her virtual community.

Authenticity

Adopting storytelling techniques, presenting autobiographical content showing an ordinary, spontaneous

lifestyle in a sincere, sympathetic way, or sharing congruent content presenting the same preferences are effective formats for creating authenticity, improving the influencer's cohesion with his or her community and strengthening the bond created with it; thus, his or her subscribers will have the ability to follow his or her recommendations.⁽¹⁶⁾

In short, credibility and its various dimensions, homophily, para-social interaction, trust and authenticity can influence the reception of a message and condition its effectiveness.⁽⁷⁾

The Persuasive Attributes of Shared Content

Influencers create their content on the basis of certain criteria, which contribute to the reliability of the message transmitted to their community and thus modify their attitude. The content must combine accuracy, relevance, intelligibility, completeness, topicality, dynamism, personalization and diversity of the message.⁽¹⁷⁾

The Informative Quality and Argumentative Force of Shared Content

According to the literature, content quality is judged in terms of relevance, comprehensibility, sufficiency of argument and timelessness.⁽¹⁸⁾ The content must propose objective arguments that are solid, convincing,⁽¹⁹⁾ measurable, coherent, strong and pragmatic, based on factual information that can be validated and confirmed. ⁽²⁰⁾ When online content is judged to be of « high quality », it increases the credibility of its sender and ensures its success.⁽²¹⁾

The Uniqueness and Originality of Shared Content

On social media, original, exclusive and authentic content is considered a crucial tool for influencers to get more followers.⁽²²⁾ As a result of being perceived as unique, a personal image that is different from others can be created and admired by others.⁽²³⁾ In addition,⁽²⁴⁾ they revealed that originality of message and quality of content are essential elements possessed by social influencers and have an impact on changing consumer behavior.

Community Involvement and Engagement

Subscriber engagement is reflected in the satisfaction, trust, attachment and loyalty they feel towards the influencer. In a digital context, the notion of engagement is concretized through the interaction and reactions of the virtual community to the content broadcast. Subscribers show their interest by reacting in one way or another, for example by commenting, sending private messages or sharing the influencer's content.⁽²⁵⁾

Involvement is an important moderator of how a consumer will process a message and form an attitude. An involved receiver is able to integrate, validate and compare the quality of the message's semantic content by expending cognitive effort, whereas a subject with little involvement relies more on secondary and peripheral cues such as the author's profile than on the textual content of the message conveyed.⁽²⁶⁾

The prescriptive role of digital influencers as social agents of change

The Effect of Influencers on the Attitudinal Change of Moroccan Internet Users

The expansion of the Internet has democratized the activity of influence, to the point of establishing the status of e-influencer. This social connector has succeeded thanks to its ability to persuade, its notoriety, its non-commercial orientation, its credibility, its authenticity and, above all, its popularity ⁽²⁷⁾ these social connectors have succeeded in convincing communities and contributing to their awareness and the modeling of positive behavior.

In a digital environment characterized by the emergence of a plurality of digital platforms, influencers can act as role models through the identification process.⁽²⁸⁾ Sharing their own experiences, encouraging individual empowerment and promoting healthy, sustainable lifestyles, they can foster beneficial change on an individual and collective scale. The use of this virtual space, with its multitude of targeting methods and the sophistication of its algorithms, is therefore proving to be a propitious place for the easy and rapid distribution of messages with a potentially viral effect. These new cultural influencers have become omnipresent in the daily lives of Moroccan Internet users. They have a powerful influence on the public.

Explanatory theories of digital social influenc

Researchers use various theoretical frameworks to study the phenomenon of influence in an online context, and we will list the most relevant to our field of investigation.

Social Influence Theory

provides a better understanding of the invisible mechanisms that enable influencers to forge relationships and ensure closeness and trust with members of their community,⁽²⁹⁾ it explains how the presence and behavior of others influence an individual.⁽²⁸⁾ argued that an individual engages in several basic processes when adopting

induced behavior, namely conformity, identification and internalization. In the context of digital influence, we will deal with identification and internalization.

Influence through identification is when the follower perceives the influencer as an example to follow, who is desirable, attractive, popular and creative, and would therefore like to be like him or her. Influence through internalization is a process that occurs when an individual approves of influence on his or her community because the induced behavior is consistent with his or her value system and its content is intrinsically rewarding, useful and informative (Kelman H, 1974). When the source is a celebrity, influence comes through the identification process; when the source is an expert, impact comes through the internalization process.⁽²⁸⁾

Parasocial Interaction Theory

The concept of parasocial relations refers to the relationship between a well-known personality and his or her audience, a relationship that is frequently linked to the notion of intimacy. Influencers cultivate this close affective bond through the sincere sharing of aspects of their daily lives ⁽¹³⁾ or through the behavior and personality these digital actors adopt on social networksThe development of deeper psychological bonds by meeting followers' needs for ideality, kinship and competence enable them to establish long-term relationships,⁽³⁰⁾ exert a certain form of influence ⁽³¹⁾ and build a solid community, which is the basis of their influence.⁽³²⁾

Theory of Reasoned Action

Is a theory developed by ⁽³³⁾ to predict the voluntary behavior of individuals on the basis of their attitudes and subjective norms. Over the past decade, the theory of reasoned action has become one of the most widely used theories for studying individual behavior.

The SOR model

Is an explanatory model of consumer behavior that takes into account the role of situational and personal consumer factors.⁽²¹⁾ Taking the S-O-R framework, content published and broadcast by influencers are considered stimuli; reactions are the perceptions and evaluations of the vital community inducing an attitudinal change, they are based on credibility, congruence, authenticity and other characteristics of the influencer, finally ,responses are the changes detected in the behaviors of subscribers who have followed the advice and recommendations disseminated .

Following the literature review, here are the main variables relevant to our study. (table 2)

Table 2. Study variables		
Variables	Variable definition	Source
Source's perceived credibility	« Perceived credibility is broken down into 3 dimensions: expertise, reliability and physical and social attractiveness ».	(7)
Source homophily	Homophily is « the degree of similarity or congruence between two people, whether in beliefs, education or social status ».	(14)
Parasocial interaction	refers to the relationship between a well-known personality and his or her public, which is often linked to the notion of intimacy	(13)
Trust	also defines trust as the willingness to take risks within a relationship.	(34)
	« Informational quality is the usefulness, reliability, relevance and specificity of the information provided about a product or service ».	(35)
force of the message	The argumentative power of the message concerns its « accuracy, relevance, intelligibility, completeness, timeliness, dynamism, personalization and diversity ».	(17)
Uniqueness and originality Content	« Uniqueness has been seen as a state in which a person feels differentiated from those around him or her, and involves the use of behaviors that attract the attention of others ».	(36)
Receiver involvement	"a state of motivation of the individual that defines a greater or lesser degree of energy allocated to tasks"	(37)
Receiver Commitment	when consumers react in some way (like, comment, share) to the influencer's content	(25)
Behavioral purchase intention	$\ensuremath{\overset{\scriptstyle <}{_\sim}}$ the consumer's expressed desire to buy a product or service in the near future $\ensuremath{\overset{\scriptstyle <}{_\sim}}$	(38)

METHOD

In order to properly analyze our research problem, a systemic literature review was carried out to contextualize the work in relation to existing literature. The use of descriptive methods was also of great use in analyzing the motivations and communicative strategies of social-oriented digital influencers. In parallel,

an exploratory qualitative empirical study is being carried out with a sample of 34 digital influencers with accounts on the Instagram platform. Interviewees were selected on the basis of the relevance and quality of their content, which is disseminated with a non-profit social approach and no commercial intent. The study was carried out using an interview guide comprising four themes, with the choice of areas of investigation focused on health, physical coaching, personal development, parental support and schooling, in order to reveal the social aspect of awareness-raising among Moroccan subscribers. Analysis of the results using Nvivo 12 plus software is still being finalized, to enable rich understanding and in-depth exploration; this methodological approach is primarily aimed at understanding, learning and emancipation.

The preliminary results of our interviews and observational studies approve the crucial role played by influencers in the attitudinal change and purchase intention of their target audience. The choice of this iterative approach, characterized by back and forth between theory and fieldwork, is justified by the specificity of our research problem, which aims to integrate the theoretical considerations retained from the literature review into the process of forming the final research model.

Research Hypotheses and proposed Theoretical Model

After delving into the literature, an amalgam of theoretical concepts was analyzed through a panoply of variables that enabled us to formulate the various hypotheses and the design of our theoretical model.

Research Hypothesis

H1: Influencer's perceived credibility has a significant influence on attitude and purchase intention

H2: Perceived Influencer Homophily Increases Behavioral Purchase Intention

H 3: Physical and Social Attractiveness have a significant effect on subscribers' attitudinal change and purchase intention

H4: Parasocial interaction between the influencer and his or her followers increases the engagement of the virtual community

H5: The uniqueness, informative quality and persuasive power of the broadcast message has a positive effect on subscriber involvement.

H6: Subscriber engagement leads to positive attitudinal change

H7: Involving subscribers positively changes their attitudes

H8: Attitude has a positive impact on buying intention

The Theoretical Model

Based on the analysis of the literature review and an analysis of the various variables in the study, we propose the following theoretical model, which aims to remedy the potential gaps in existing studies.

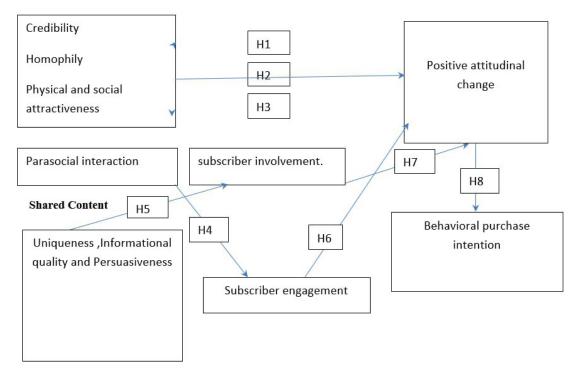


Figure 1. The Research Model

The following model focuses on the attributes of the source and its content as explanatory variables in attitudinal change and purchase intention as variables to be explained. The commitment and involvement of the virtual community are mediating variables that condition subscribers' attitudinal change.

DISCUSSION

The para-social interaction ,the homophily and congruence between the influencer and his shared content, the authenticity, the trust established between him and his subscribers, the credibility of his expertise, his integrity, his benevolence towards his subscribers, are all determining factors and criteria that, each in their own way, influence the attitude and behavioral intention to purchase of the virtual community.⁽²⁹⁾ This work also confirms the idea that the requirement in terms of perceived uniqueness,⁽²³⁾ informative quality and argumentative force of publications,⁽²¹⁾ originality and relevance of the content disseminated on influencers' accounts seem to be of undeniable use in provoking virtual interpersonal influence and inducing attitudinal change. At a managerial level, and given that the influence sector in Morocco lacks structure and specialization, it is essential to legally regulate the status and role of Moroccan influencers through the sector's professional maturity, in order to reinforce notoriety, credibility and trust between the various stakeholders and establish a new, reliable and credible channel for social change.

CONCLUSION

Our study aims to examine the effect of digital social influence on attitudinal change and purchase intention among Moroccan Internet users. The original and innovative aspect lies in the interdisciplinary combination of the problem studied, and the objective sought is to lift the veil on the social footprint of the digital influencer as an actor of attitudinal change bringing measurable interpersonal influence value; the contribution of this social connector was examined by analyzing a panoply of characteristics linked to his profile, his broadcast content and his community. The influencer marketing sector has become an ideal and relevant alternative used as a strategic tool and an effective and efficient channel for virtual interpersonal digital communication, and has made a significant contribution to business performance and competitiveness. From a managerial point of view, the aim of this work is to provide marketers with practical guidelines for choosing and selecting influencers and formalizing their status, which will enable them to ensure the trust of their communities and consequently proximity, commitment and involvement. At the end of our study, we suggest some areas for improvement that could be of major use to decision-makers sush as the introduction specialized, in-depth university training in content production, marketing and social media management or Implementing a digital law in Morocco and formalize the status of digital influencer.

Other qualitative and quantitative analyses and studies of influencers in various fields of specialization are currently underway to explore in depth the motivations of these social change agents behind the creation of their content, to better define the communication strategies used and to better refine the target that constitutes their community.

REFERENCES

1. Abidin C. Internet Celebrity: Understanding Fame Online. In: Abidin C, ed. Internet Celebrity: Understanding Fame Online. Vol. 8. 2018. https://doi.org/10.1108/978-1-78756-076-520181002

2. Ajzen. The theory of planned behavior. Organisational Behavior and Human Decision Processes. 1991; (Vol. 50). https://doi.org/10.1016/0749-5978(91)90020-t

3. Ajzen LE. Indrestandig attitudes and predicting social behavior. Engelwood Cliffs, NJ: Prentice-Hall; 1980. https://doi.org/10.1017/s0360966900023896

4. Bojang I. DETERMINANTS OF TRUST IN B2C E-COMMERCE AND THEIR RELATIONSHIP WITH CONSUMER ONLINE TRUST: A CASE OF EKATERINBURG, RUSSIANFEDERATION. J Internet Bank Commer. 2017;1-59. https://doi.org/10.1063/1.5013938

5. Boucher S. L'influence sociale sur Instagram: L'influence contrôlée des usagères et usagers ordinaires. 2021. https://doi.org/10.1787/888932660357

6. Caccioppo P, et al. Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement. J Consum Res. 1983;10:135-146. https://doi.org/10.1086/208954

7. Carter D. Hustle and brand: The sociotechnical shaping of influence. Soc Media Soc. 2016;2(3). https://doi.org/10.1177/2056305116666305

8. Chae J. Explaining females' envy toward social media influencers. Media Psychol. 2017;21(2):246-262. https://doi.org/10.1080/15213269.2017.1328312

9. Chaiken S. Communicator physical attractiveness and persuasion. J Pers Soc Psychol. 1979;37:1387-1397. https://doi.org/10.1037//0022-3514.37.8.1387

10. Cheung CL. The impact of electronic word-ofmouth. The adoption of online opinions in online customer communities. Internet Res. 2008;18(3):229-247. https://doi.org/10.1108/10662240810883290

11. Cyr D. Modeling Website Design across Cultures: Relationships to Trust, Satisfaction and E-loyalty. J Manage Inf Syst. 2008;24(4):47-72. https://doi.org/10.2753/mis0742-1222240402

12. Davis. Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Q. 1989;13(3):319-340. https://doi.org/10.2307/249008

13. De Veirman MV. Marketing through Instagram Influencers: The Impact of Number of Followers and Product Divergence on Brand Attitude. Int J Advert. 2017;36(5):28-98. https://doi.org/10.1080/02650487.2017.13480 35

14. DeLone WE. The Delone and McLean Model of Information Systems Success: A Ten Year Update. Inf Manag. 2003;19(4):9-30. https://doi.org/10.1080/07421222.2003.11045748

15. Dhanesh GS. Relationship management through social media influencers: Effects of followers' awareness of paid endorsement. Public Relat Rev. 2019;45(3). https://doi.org/10.1016/j.pubrev.2019.03.002

16. Djafarova E, et al. 'Instafamous'-credibility and self-presentation of micro-celebrities on social media. Inf Commun Soc. 2018;22(10):1432-1446. https://doi.org/10.1080/1369118x.2018.1438491

17. Doyle C. Les influenceurs et leur impact sur les choix des consommateurs dans le contexte d'instagram. 2020. https://doi.org/10.2307/j.ctv1n35cpx.21

18. Enke N. Social media influencers in strategic communication: A conceptual framework for strategic social media influencer communication. Int J Strateg Commun. 2019;13(4):276. https://doi. org/10.4324/9781003181286-2

19. Erdogan B. Celebrity Endorsement: A Literature Review. J Mark Manage. 1999;41(3):291-314. https://doi.org/10.1362/026725799784870379

20. Eyal KR. Viewer aggression and homophily, identification. Broadcast Electron Media. 2003;1:77-98. https://doi.org/10.1207/s15506878jobem4701_5

21. Fakhreddin F. Instagram influencers: the role of opinion leadership in consumers' purchase behavior. J Promotion Manage. 2021;1-31. https://doi.org/10.1080/10496491.2021.2015515

22. Gentina EB. Unique but integrated: The role of individuation and assimilation processes in teen opinion leadership. J Bus Res. 2014;67(2):83-91. https://doi.org/10.1016/j.jbusres.2012.11.013

23. Hashoff. Influencer marketer. 2017. https://doi.org/10.1007/978-3-658-20854-7_6

24. Hudders LD. The value of influencer marketing for business: A bibliometric analysis and managerial Implications. J Advert. 2021;50(2):160-178. https://doi.org/10.1080/00913367.2020.1857888

25. JainL K. Discover opinion leader in online social network using firefly algorithm. Expert Syst Appl. 2019;1-15. https://doi.org/10.1016/j.eswa.2018.12.043

26. Kelman H. Compliance, identification, and internalization: Three processes of attitude change. J Confl Resolut. 1958;1(2):51-60. https://doi.org/10.1177/002200275800200106

27. Kelman H. Processes of opinion change. Public Opin Q. 1961;25(1):57-78. https://doi.org/10.1086/266996

28. Kelman H. Social power and political influence. Vol. 1. 1974. https://doi.org/10.4324/9781315129693-6

29. Ki CC. Influencer marketing: social media influencers as human brands attaching to followers and yielding positive marketing results by fulfilling needs. J Retail Consum Serv. 2020;55. https://doi.org/10.1016/j. jretconser.2020.102133

30. Kim AJ. Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. J Bus Res. 2012;65(10):1480-1486. https://doi.org/10.1016/j.jbusres.2011.10.014

31. Laet Derache L. Quels sont les éléments expliquant le succès des influenceurs virtuels (IV) alors que l'efficacité des influenceurs humains (IH). Louvain: Louvain School of Management; 2021. https://doi. org/10.2307/j.ctv1n35cpx.18

32. Marteaux. Un nouveau moyen de communication: le bouche à oreille électronique. Actes des 2èmes journées sur la communication hors média. Nancy: Université Nancy 2; 2006:27. https://doi.org/10.2307/j. ctv5j01sk.17

33. Maslash CS. Individuation: Conceptual analysis and assessment. J Pers Soc Psychol. 1985;49:729-738. https://doi.org/10.1037//0022-3514.49.3.729

34. McCroskey JC. The measurement of interpersonal attraction. Speech Monographs. 1974;41(3):261-266. https://doi.org/10.1080/03637757409375845

35. McGuire W. Attitudes and attitude change. Handbook in social psychology. In: Gardner L, Lindzey G, Aronson E, eds. 1985. https://doi.org/10.2307/1162238

36. Miled-Chérif HB. L'implication du consommateur et ses perspectives stratégiques. Recherche et applications en marketing. 2001;16(1):80. https://doi.org/10.1177/076737010101600105

37. Ohanian R. Construction and Validation of a Scale to Measure Celebrity Endorser's Perceived Expertise, Trustworthiness, and Attractiveness. J Advert. 1990;19(3):39-52. https://doi.org/10.1080/00913367.1990.106 73191

38. Ouahi ML. Étude empirique sur le rôle des influenceurs digitaux dans la stratégie marketing digitale. Rev Int Sci Gestion. 2020;3(4):199. https://doi.org/10.1051/larsg:2007051

39. Park DH. The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement. Int J Electron Commer. 2007;11(4):125-148. https://doi.org/10.2753/jec1086-4415110405

40. Petty RC. Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement. J Consum Res. 1983;135-146. https://doi.org/10.1086/208954

41. Schouten.A JL. Celebrity vs. Influencer endorsements in advertising: the role of identification, credibility, and Product-Endorser fit. Int J Advert. 2020;39:258-281. https://doi.org/10.1080/02650487.2019.1634898

42. Singh S. Brand Performances in Social Media. J Interact Mark. 2012;89-197. https://doi.org/10.1016/j. intmar.2012.04.001

43. Sokolova K. Instagram and Youtube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. J Retail Consum Serv. 2020;53(1). https://doi.org/10.1016/j. jretconser.2019.01.011

44. Tafesse W. Followers' engagement with instagram influencers: the role of influencers' content and engagement strategy. J Retail Consum. 2021. https://doi.org/10.1016/j.jretconser.2020.102303

45. Till BD. The match-up hypothesis: Physical attractiveness, expertise, and the role of fit on brand attitude, purchase intent and brand beliefs. J Advert. 2000;29(3):13. https://doi.org/10.1080/00913367.2000.10673613

46. Triantafyllou SA, et al. Gamification and Computational Thinking in Education: A systematic literature

review. Salud Cienc Tecnol - Ser Conf. 2024;3:659. DOI:10.56294/sctconf2024659

47. Shamim R, et al. Enhancing Cloud-Based Machine Learning Models with Federated Learning Techniques. Lecture Notes in Networks and SystemsVolume 838 LNNS. 2024;594 - 606. DOI: 10.1007/978-3-031-48573-2_85. https://doi.org/10.1007/978-3-031-48573-2_85

48. Sossi Alaoui S, et al. Machine Learning for Early Fire Detection in the Oasis Environment. Lecture Notes in Networks and SystemsVolume 838 LNNS. 2024;138 - 143.: https://doi.org/10.1007/978-3-031-48573-2_20

49. Khouibiri N, et al. Design and Analysis of a Recommendation System Based on Collaborative Filtering Techniques for https://doi.org/10.23919/icn.2023.00241.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTIONS

Conceptualization: SETTOU Hind, AOMARI Amina. Data curation: SETTOU Hind, AOMARI Amina. Investigation: SETTOU Hind, AOMARI Amina. Writing - original draft: SETTOU Hind, AOMARI Amina. Writing - review & editing: SETTOU Hind, AOMARI Amina.