

Entrepreneurial Orientation and the Innovation Performance of the Algerian Start-ups “The Mediating Role of Social Media Platforms and Absorptive Capacity”

التوجه المقاوالاتي والأداء الابتكاري للمؤسسات الناشئة الجزائرية "الدور الوسيط لمنصات التواصل الاجتماعي والقدرة الاستيعابية"

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Abstract

This study tries to shed light on the entrepreneurial orientation mechanisms that enhance innovation performance within an Algerian context, relying on the statistical analysis employed by the data extracted from a questionnaire. The results indicate a positive and significant impact of entrepreneurial orientation dimensions, namely innovativeness, risk-taking, proactiveness, autonomy and networking on innovation performance, with a mediating effect from absorptive capacity and the use of social media platforms.

Keywords: Absorptive Capacity; Entrepreneurial Orientation; Innovation Performance; Social media platforms

JEL Classification Codes: L96, O31

ملخص

تحاول هذه الدراسة أن تسلط الضوء على آليات التوجه الريادي أو المقاوالاتي التي تحسن الأداء الابتكاري لعينة من مؤسسات ناشئة جزائرية، تم الاعتماد على التحليل الاحصائي للبيانات المستخرجة من الاستبيان. وضحت النتائج وجود تأثير موجب ومعنوي لآليات التوجه المقاوالاتي المتمثلة في الابتكار، المخاطرة، الاستباقية، الاستقلالية والشبكات في الأداء الابتكاري للعينة المدروسة، مع وجود أثر وسيط لكل من القدرة الاستيعابية واستخدام منصات التواصل الاجتماعي.

كلمات مفتاحية: التوجه المقاوالاتي، الأداء الابتكاري، القدرة الاستيعابية، منصات التواصل الاجتماعي

تصنيفات JEL: O31، L96

INTRODUCTION

Innovation is considered a major source of competitive advantage due to the complex business environment. The growing use of information and communication technology tools, whether at the level of firms or individuals, reduces the costs related to the coordination and combination of innovative offers. Social media platforms have become an essential element in the strategy of organizations in a wide range of industries and a large sector of services.

Entrepreneurial Orientation within firms and innovation depend highly on the knowledge management and its tools, make use of the absorptive capacity in the innovation process and the capture of opportunities is widely recognized among firms. Using social media platforms for sensing opportunities, seizing and gathering resources and transforming ideas and concepts into innovation also depend on the size of the firm, its maturity and its ability to influence other parties. Many studies have shown that the implementation of social media platforms like Facebook and Twitter in R&D, combining innovative offerings is one of the key factors for success.

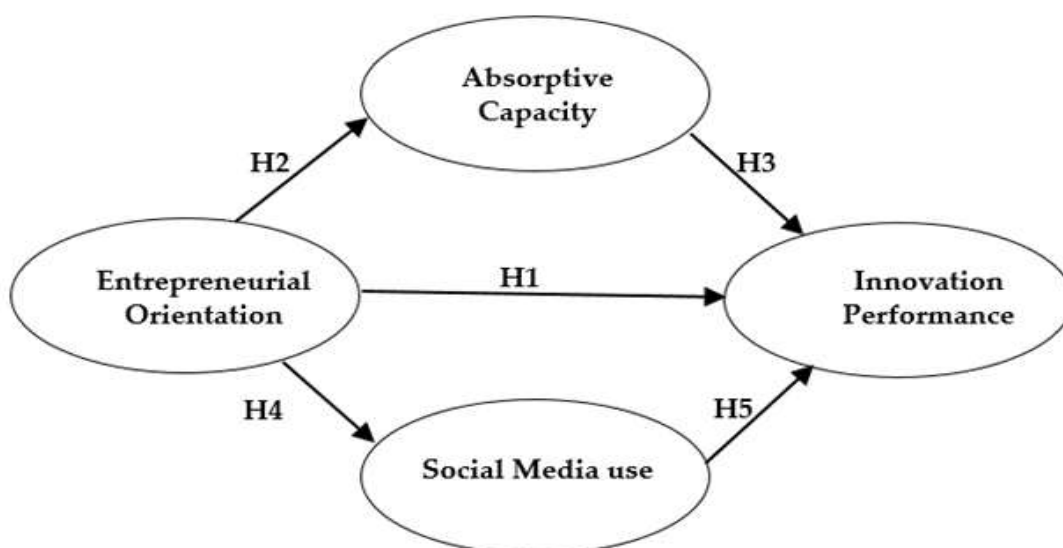
Based on the above discussion, two research questions are addressed:

Does Entrepreneurial Orientation positively influence the Innovation performance of the Algerian start-ups studied? Is the absorptive capacity and the use of social media platforms play a significant role in that relation?

The study frame is based on the Entrepreneurial Orientation perspective to enrich the innovation and entrepreneurship literature dealing with absorptive capacity and social media use as the central dynamic capabilities sources.

The following figure depict the study model:

Fig (1): the study model



1- Entrepreneurial Orientation and Innovation

Entrepreneurship represents the creation of new wealth through innovative activities, both from startup companies and established firms. These activities play a significant role in the increase and exploitation of new technologies. However, many start-ups are not innovative, rather copying business models previously employed by others. Entrepreneurship helps individuals in the creation of new value (Soufyane et al., 2017). Authors links the entrepreneurship with the ability to capture opportunities.

For instance, Shane and Venkataraman (2000) describe the academic field of entrepreneurship as the scientific analysis of the process of detection, assessment, and utilization of goods and services, as well as the parties involved in that process and outcomes (Shane and Venkataraman, 2000). The field involves the study of context and circumstances that make business successful, the identification and assessment of opportunities, and the set of individuals who discover, evaluate, and exploit them. Therefore, entrepreneurial firms create, define, discover, and exploit opportunities frequently well ahead of their rivals (Zahra et al., 2006), in literature, there is a distinction between entrepreneurship and entrepreneurial orientation (EO), it is defined as the processes, actions, and management activities that lead to new products or services (Lumpkin and Dess, 1996)

Most studies popularly conceive of entrepreneurial orientation as a compound phenomenon; basically, it was Miller (1983) who gave an excellent initial point to demonstrate the entrepreneurial firm; he defines it as a firm that can introduce innovative products, is able to take some risky ventures, and usually dominates the market, beating competitors (Miller, 1983). Thus, Miller identified the core building blocks of the entrepreneurial orientation. Based on that, authors explained the difference between entrepreneurial orientation and conservative firms according to their ability to practice an entrepreneurial orientation; that's their management system and values, as well as their strategic choices and tactics that are entrepreneurial. Entrepreneurial means to innovate, behave proactively, and be willing to take risks.

Nevertheless, Lumpkin and Dess (1996) identify two other dimensions of the entrepreneurial orientation namely **competitive aggressiveness** and **autonomous action**. Other modern scholars include **networks** as an entrepreneurial dimension for the practical necessity of building complex relationships with other parties or as an independent component (Lumpkin and Dess, 1996)

Innovativeness refers to the capacity of a firm to engage in innovation, i.e. the introduction of new processes, products, or ideas in the organization, and it is the strategies and actions that the firm may undertake in order to actualize corporate orientation. These present innovativeness as a behavior-based construct, other studies emphasize on technological aspects of the innovation process.

Risk-taking typically involves the tendency to support projects, despite the possibility of failure; however, it is a vital element for realizing innovation and creativity in firms. CEOs and

managers are characterized by a high level of risk-taking tend to be unbound in their actions; thus, they eagerly prepare and allocate resources or manage procedures toward the development of new products and processes. (García-Granero et al., 2015)

Proactiveness mainly refers to the ability to be ready to experience forthcoming events and surpass rivals. Some studies related proactiveness with CEOs engagement in external network building, which allow them to solve problems and seize opportunities, and learn about the successful implementation of new know-hows and managerial process that can enhance radical new product development and increase firms innovation capabilities (Kiss et al., 2022)

Competitive aggressiveness is the ability to challenge that start-ups frequently need to face existing rivals and achieve new entry. Another key component of an EO is a propensity to take independent action from an individual or team directed to create a business concept or vision and carry it through to completion.

Start-up firms need to use precise actions prerequisite to the introduction of new ventures. Procedures of bureaucracy and organizational practice hardly contribute to new-entry activities in most firms. Instead, it needs the use of autonomy by strong CEOs, free teams, or resourceful people who are not attached to daily what-to-do lists to make new innovative products (Lumpkin and Dess, 1996)

Previous studies highlight the importance of entrepreneurial orientation for the start-ups innovative performance, e.g. the study of (Carvalho and Sugano, 2016) in which they used four entrepreneurial dimensions that's risk taking, proactiveness, autonomy and network, also they add open innovation as a dimension of the OE with a positive effect on the performance of start-ups studied. Similar to that (Vincent and Zakkariya, 2021) discuss the relationship between the entrepreneurial orientation and incubator start-up performance with the mediating role and the positive effect of the absorptive capacity in that relation.

2- The Use of Social media and Innovation

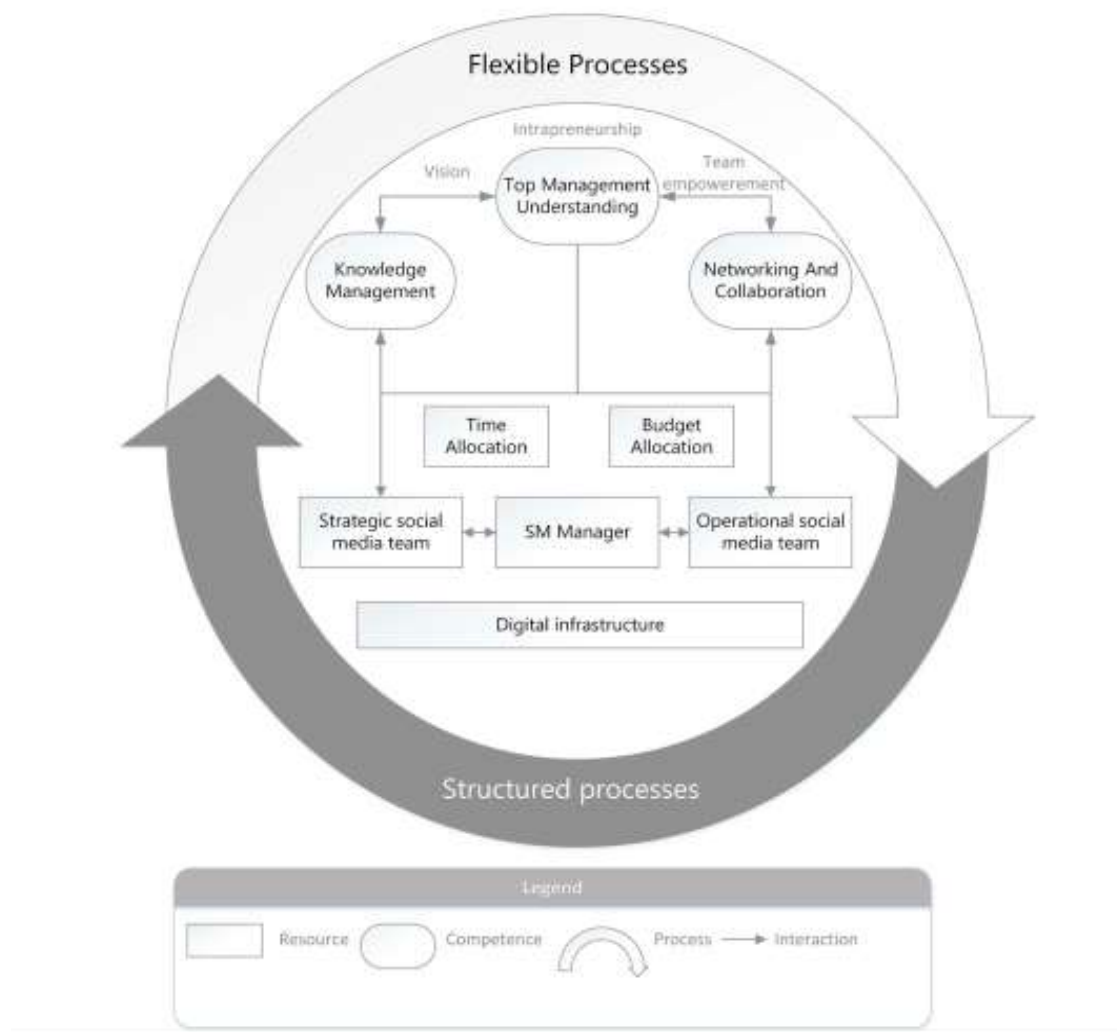
Social media platforms and related technologies have extremely revolutionized the means that allow people and organizations to interact and communicate due to the era of digital revolution and globalization. Social media can be defined as a bunch of applications and algorithms designed on the internet infrastructure of Web 2.0, and these apps facilitate the creation and exchange of user-generated content. The practical use of these tools escalates exponentially; business companies, start-ups, governments and organizations are enthusiastically employ it in their marketing activities due to their limited cost and strength (Kim and Ko, 2012)

Social media usage is the ability to use social media to extract information, experiment, and create new ideas, as well as to apply and use these new ideas in today's activities within firms (Freixanet et al., 2021). Social media tools that enable knowledge acquisition could and should be considered as a valuable strategic capability of a firm in the innovation activities. Many modern scholars, managers and organization CEOs attempt to clarify tools in which firms can establish lucrative use of applications such as Facebook, YouTube and Twitter, by considering

these platforms as an IT capability which enhance the innovation performance and provide valuable information.

The capabilities needed for social media use in the innovation process are illustrated in figure 2;

Fig (2): Process and Capabilities of Social Media for the Innovation Process



Source: (Muninger et al., 2019)

Literature considers the effective use of social media platforms as a digital technology which enabling innovation; by the collaborative and co-creation feature of web 2.0 technologies. (Bhimani et al., 2019) state that social media can help to spread a lot of communications and linkages across organizational, industry, and market boundaries, helping to boost the process of idea discovery, development, and the introduction of innovation.

Companies have to establish an open virtual environment that allow people from diverse range of scientific backgrounds to create, share and contribute on the content (Mount and

Martinez, 2014), thus; substantial amount of data known as User-generated content (UGC) develop in to an effective source of information. UGC usually contains small pieces of text that express different views and state of mind linked to a precise topic; it can typically contain remarks, assessments, feelings or attitudes or any information that people make in digital environments and social media platforms and networks .

Academic researchers have explored user-generated content, knowledge creation and innovation; for instance (Ho-Dac, 2020) demonstrates the positive effect and the importance of UGC for the development of products and described the value of UGC in improving the competitive advantage of firms using social media platforms.

In their part Patroni et al. study how one of the biggest stores in the world used consumer interactions that could be found in social media for the creation of a new product or a service, and succeed in making it a capability, despite these conversations, have been created purposefully for innovation activities or not (Patroni et al., 2022).

While much has been discussed about the complex interactions between social media use and innovation in large companies, less attention has been given to these connections in SMEs and start-ups. However, some authors argue that the knowledge acquired from social media platforms may be mostly useful for SMEs, which usually do not have the resources to place more costly information channels (Pérez-González et al., 2017, Hitchen et al., 2017). Using social media applications and tools within small and medium enterprises supports their internationalization by introducing social media as a business tool and a strategy to compete with their larger counterparts.

The practical use of social media platforms and applications is recognized as an effective tool for entrepreneurship. These platforms and applications help entrepreneurs to identify changes and opportunities and starting a business successfully. Social media considered to be advantageous to start-ups and it has a significant positive impact on start-ups innovation outcomes. Also and according to Tajpour and Hosseini social media use mediate the relationship between the entrepreneurial intention which include (knowledge sharing, reputation and social relations) and the performance of digital start-ups (Tajpour and Hosseini, 2021)

3- Absorptive Capacity and Innovation

Before shedding light on the absorptive capacity, it must clarify their antecedent, which is dynamic capabilities; the theory has been inspired by the resource-based view, Porters competitive forces and the organizational routines, however, the theory goes further by broaching the issue of selecting, developing, and renewing resources.

Empirical studies have proved the vital role of dynamic capabilities within successful firms; basically in the context of strategic management, more recently with innovation and entrepreneurial activities, Furthermore, dynamic capabilities became a leading topic regarding the open innovation strategies adoption and successful implementations. These studies highlighted the three key capabilities namely sensing, seizing and transforming.

Firms need to be entrepreneurial in order to strengthen their dynamic capabilities, which means they have to advance and examine technological and emerging opportunities in the markets, innovate and enhance their business models, invest the right R&D expenses, gather and coordinate the required resources inside and outside.

Cohen & Liventhal coined the term absorptive capacity: The organization's ability to be aware of the value of external information and the ability to absorb it and transform it into business applications and it is critical to its innovations. This ability is largely related to a company's level of prior relevant knowledge. (Cohen and Levinthal, 1990). The big the amount of knowledge held or created by firms (e.g. in R&D), the higher is the probability of superior innovative performance, as more external knowledge may be absorbed. The notion of absorptive capacity evolved into four dimensions, as it could be defined by some established daily actions and processes that enable firms to get, adjust, convert, and use the knowledge to produce organizational capability.

The absorptive capacity (ACAP) is activated through various learning processes; Exploratory learning allows the acquisition of external knowledge, while Exploitative learning enables the firms to apply the acquired knowledge in a new framework, for example, combining technological knowledge with knowledge of the market (Enkel and Mezger, 2013). The relationship between ACAP and entrepreneurship has been discussed from various perspectives; some studies consider ACAP as one factor with others, to help gaining access to varied and current knowledge, hence improve the capability to capture opportunities.

From the perspective of moderating and mediating effects, ACAP appear to be highly studied among scholars; .e.g. (Vincent and Zakkariya, 2021) discuss the mediating role and the impact of absorptive capacity, with their diverse forms that enable companies to learn and make use of the information in the development of start-up incubators, both on the financial aspects and the innovation ones.

4- Innovation Performance

Based on the innovation process, literature considers the Corporate Model and the Entrepreneurship Model, the classical and established firms are called “corporations”, on the other hand firms recently started by entrepreneurs are “startups”, start-up is a new project with limited technical and financial assets. They are bound by their liability of newness and smallness, and therefore lack access to adequate resources.

Start-ups are firms in their early stage of development, usually focusing on providing high-tech products and services, rather than following the strategies designed for large, multinational firms, startup companies need to build a clear brand vision and develop creative and innovative activities that take into consideration their unique characteristics. Generally, they obliged to search for external partner in different processes of the development and commercialization of their ideas or technologies, the survival and growth of start-ups need the opening up of the innovation process and the use of external sources of knowledge.

Nowadays the innovation performance of firms largely depends on external networking, communities' participations and linkages (e.g. in Open Innovation). These networks could help companies and start-ups to achieve their innovative goals by developing relations with universities and research laboratories to explore the technical and commercial potential of new technologies, or set up networks with selected suppliers and customers to launch new products or services or new business models (Chesbrough et al., 2006)

Innovation is a multidimensional process and highly complex in nature; thus, the criteria for measuring success and the ability to innovate may vary depending on the context. However, innovation can be evaluated in terms of the strength of innovative competencies; this perspective assesses the extent to which organizations' skills, processes, culture and circumstances support the transformation of the innovation resources they manage into an idea for business innovation.

Modern literature assesses the innovation performance by evaluating the amount of success reached by firms in realizing goals related to the launching of innovative goods or services. There is no agreement in the innovation performance index, however, for the assessment of innovation performance; studies use a varied indicators. E.g. the ability to introduce new product or service, the success rate of product or service, delivered customer needs and services and the sales percentage. As the innovation could happen either on product or process or in both together, it is relevant to use the ability to introduce innovative products, the degrees of activities included in the innovation process, and innovation efficiency as factors of the innovation performance. Other studies employ the proportion of annual turnover of new products, new products index and modified product index as measurement scales of the innovation performance.

5-Results

This study examined Algerian start-ups that are basically active in high-tech industry, applications and web developers, and some pharmaceutical start-ups in Algiers, a total of 485 questionnaires (in Arabic language) were distributed, resulting in a total of 227 valid questionnaire. We use five points Likert scale to measure the items from the lowest score 1 and the highest score as 5. The scales of (Li et al., 2009) have been implemented for the measurement of the five entrepreneurial orientation, and for the networking dimension, we use (Chesbrough et al., 2006) open innovation tools and items. The use of the social media platforms have been adopted from (Freixanet et al., 2021), and for the absorptive capacity the scales was previously employed by (Sciascia et al., 2014). Finally, innovation performance items index have been adopted from (García-Granero et al., 2015).

Table (1): Reliability Statistics

Variable	No of items	Cronbach’s Alpha
Entrepreneurial Orientation	13	.791
Social Media use	6	.887
Absorptive Capacity	6	.847
Innovation Performance	7	.726

Source: SPSS outputs

Table (2): Correlation Matrix of the Latent variables

	InovPer	EnOr	ABCA	SoMe
InovPer	1.000			
EnOr	.650	1.000		
ABCA	.326	.502	1.000	
SoMe	.209	.350	.239	1.000

Source: SPSS outputs

Note: InovPer = Innovation Performance, EnOr = Entrepreneurial Orientation, ABCA= Absorptive Capacity, SoMe = Social Media use

As revealed in Table (1) two variables appear to have good reliability score above 0.8, and the two others with acceptable rate above 0.7. The results in Table (2) indicates that the correlations between the main variables in the sample are positive and related to each other. These are suitable with the hypotheses that are mentioned below.

For the test of mediating relationship, a bootstrapping with 5000 samples, was ran via the PROCESS macro in SPSS (see appendix). In nutshell, Entrepreneurial Orientation accounted for 65% of the variance in start-ups performance studied.

Results indicated the positive and significant influence of the EO on the innovation performance, as ($b = 0.276$, $t = 12.833$, $p < 0.001$); which mean the following hypothesis has been supported:

H1: Entrepreneurial Orientation has a positive and significant influence on the innovation performance

Results show that there is a positive and significant mediating influence of absorptive capacity on the link between entrepreneurial orientation and innovation performance, as ($b = 0.573$, $t = 8.704$, $p < 0.001$); therefore, the following hypothesis proved:

H2: Entrepreneurial Orientation has a positive and significant influence on the Absorptive capacity

There is a positive and significant effect of Absorptive capacity on the innovation performance within Algerian start-ups as ($b = 0.122$, $t = 2.028$, $p < 0.001$), thus, the following hypothesis has been attested:

H3: Absorptive Capacity has a positive and significant influence on the innovation performance

There is a positive and significant effect of EO on the use of social media platforms within start-ups as ($b = 0.371$, $t = 5.612$, $p < 0.001$), so the following hypothesis proved:

H4: Entrepreneurial Orientation has a positive and significant influence on Social Media platforms use

There is a positive and non-significant effect of social media use on the innovation performance within Algerian start-ups as ($b = .231$, $t = -.391$, $p = .096$), thus, the following hypothesis has been proved:

H5: The use of social media platforms has a positive and non-significant impact on the innovation performance

6-Conclusion

This study tries to reveal the impact and the tools of the entrepreneurial orientation on the innovative performance of start-ups within the Algerian market. The results indicate that the five dimensions, namely innovativeness, risk-taking, proactiveness, autonomy, and networking, have a positive influence on innovation performance. The absorptive capacity and the use of social media platforms as knowledge and idea sources most likely to positively mediate that relationship.

Algerian start-ups should emphasize more on the ability to scan the market for the identification of technological opportunities; by developing their EO via the use of social media platforms, and the absorption of the big amount of valuable information and transform it in to business and concepts.

As most studies, this study is subject to limitations, which opens up opportunities for future research. Firstly, despite the measures employed in both social media platforms and absorptive capacity, there is no identification of the most effective tools that could help Algerian start-ups in the innovation processes; hence, future studies could explore these issues. Secondly, the generalization of the results is limited to the Algerian start-ups, which is active in the high tech industry.

7-Bibliography

- BHIMANI, H., MENTION, A.-L. & BARLATIER, P.-J. 2019. Social media and innovation: A systematic literature review and future research directions. *Technological Forecasting and Social Change*, 144, 251-269.
- CARVALHO, E. G. & SUGANO, J. Y. 2016. Entrepreneurial orientation and open innovation in brazilian startups: a multicase study. *Interações (Campo Grande)*, 17, 448-462.

- CHESBROUGH, H., VANHAVERBEKE, W. & WEST, J. 2006. *Open innovation: Researching a new paradigm*, USA, Oxford University Press
- COHEN, W. M. & LEVINTHAL, D. A. 1990. Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, 35, 128-152.
- ENKEL, E. & MEZGER, F. 2013. Imitation processes and their application for business model innovation: An explorative study. *International Journal of Innovation Management*, 17, 1340005.
- FREIXANET, J., BRAOJOS, J., RIALP-CRIADO, A. & RIALP-CRIADO, J. 2021. Does international entrepreneurial orientation foster innovation performance? The mediating role of social media and open innovation. *The International Journal of Entrepreneurship and Innovation*, 22, 33-44.
- GARCÍA-GRANERO, A., LLOPIS, Ó., FERNÁNDEZ-MESA, A. & ALEGRE, J. 2015. Unraveling the link between managerial risk-taking and innovation: The mediating role of a risk-taking climate. *Journal of Business Research*, 68, 1094-1104.
- HITCHEN, E. L., NYLUND, P. A., FERRAS, X. & MUSSONS, S. 2017. Social media: Open innovation in SMEs finds new support. *Journal of Business Strategy*, 38, 21-29.
- HO-DAC, N. N. 2020. The value of online user generated content in product development. *Journal of Business Research*, 112, 136-146.
- KIM, A. J. & KO, E. 2012. Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business research*, 65, 1480-1486.
- KISS, A. N., CORTES, A. F. & HERRMANN, P. 2022. CEO proactiveness, innovation, and firm performance. *The Leadership Quarterly*, 33, 101545.
- LI, Y.-H., HUANG, J.-W. & TSAI, M.-T. 2009. Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial marketing management*, 38, 440-449.
- LUMPKIN, G. T. & DESS, G. G. 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, 21, 135-172.
- MILLER, D. 1983. The correlates of entrepreneurship in three types of firms. *Management science*, 29, 770-791.
- MOUNT, M. & MARTINEZ, M. G. 2014. Social media: A tool for open innovation. *California management review*, 56, 124-143.
- MUNINGER, M.-I., HAMMEDI, W. & MAHR, D. 2019. The value of social media for innovation: A capability perspective. *Journal of Business Research*, 95, 116-127.
- PATRONI, J., VON BRIEL, F. & RECKER, J. 2022. Unpacking the social media-driven innovation capability: How consumer conversations turn into organizational innovations. *Information & Management*, 59, 103267.
- PEREZ-GONZÁLEZ, D., TRIGUEROS-PRECIADO, S. & POPA, S. 2017. Social media technologies' use for the competitive information and knowledge sharing, and its effects on industrial SMEs' innovation. *Information Systems Management*, 34, 291-301.
- SCIASCIA, S., D'ORIA, L., BRUNI, M. & LARRAÑETA, B. 2014. Entrepreneurial Orientation in low- and medium-tech industries: The need for Absorptive Capacity to increase performance. *European management journal*, 32, 761-769.
- SHANE, S. & VENKATARAMAN, S. 2000. The promise of entrepreneurship as a field of research. *Academy of management review*, 25, 217-226.
- SOUFYANE, B., NEFFAH, Z. & DOULI, L. 2017. Requirements of creation and succession of innovative entrepreneurial Youth. *Journal of Economic Integration*, 5, 1-15.
- TAJPOUR, M. & HOSSEINI, E. 2021. Entrepreneurial intention and the performance of digital startups: The mediating role of social media. *Journal of Content, Community & Communication*, 13, 2-15.
- VINCENT, V. Z. & ZAKKARIYA, K. 2021. Entrepreneurial orientation and startup performance in technology business incubation: mediating role of absorptive capacity. *Journal of Small Business Strategy*, 31, 100-116.

ZAHRA, S. A., SAPIENZA, H. J. & DAVIDSSON, P. 2006. Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management studies*, 43, 917-955.

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Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

*****
Model   : 4
  Y     : InovPer
  X     : EnOr
  M1    : ABCA
  M2    : SoMe

Sample
Size: 227

*****
OUTCOME VARIABLE:
  ABCA

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .502      .252      .208     75.762     1.000     225.000     .000

Model
      coeff      se      t      p      LLCI      ULCI
constant    .527    .175    3.004    .003    .181    .872
EnOr        .573    .066    8.704    .000    .443    .702

Standardized coefficients
      coeff
EnOr        .502

Covariance matrix of regression parameter estimates:
      constant      EnOr
constant    .044    .116
EnOr        .116    .044

*****
OUTCOME VARIABLE:
  SoMe

Model Summary
      R      R-sq      MSE      F      df1      df2      p
      .350      .123      .210     31.494     1.000     225.000     .000

Model
      coeff      se      t      p      LLCI      ULCI
constant    2.236    .176    12.683    .000    1.889    2.584
EnOr        .371    .266    5.612    .000    .241    .502
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1.

Entrepreneurial Orientation and the innovation performance of the Algerian start-ups “the mediating role of social media and absorptive capacity”

Standardized coefficients

coeff
EnOr .350

Covariance matrix of regression parameter estimates:

	constant	EnOr
constant	.044	.116
EnOr	.116	.044

OUTCOME VARIABLE:

InovPer

Model Summary

R	R-sq	MSE	F	df1	df2	p
.650	.423	.297	54.500	3.000	223.000	.000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.062	.276	-.224	.000	.606	.483
EnOr	0.296	.095	10.739	.000	.830	1.203
ABCA	.122	.080	2.028	.000	-.155	.160
SoMe	.231	.080	-.391	.096	-.188	.126

Standardized coefficients

coeff
EnOr .657
ABCA .124
SoMe -.021

Covariance matrix of regression parameter estimates:

	constant	EnOr	ABCA	SoMe
constant	.076	-.010	-.002	-.014
EnOr	-.010	.009	-.003	-.002
ABCA	-.002	-.003	.006	.000
SoMe	-.014	-.002	.000	.006

Test(s) of X by M interaction:

	F	df1	df2	p
M1*X	.773	1.000	222.000	.000
M2*X	.335	1.000	222.000	.000

***** TOTAL EFFECT MODEL *****

OUTCOME VARIABLE:

InovPer

Model Summary

R	R-sq	MSE	F	df1	df2	p
.650	.423	.295	164.699	1.000	225.000	.000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.130	.209	-.623	.534	.542	.282
EnOr	.276	.078	12.833	.000	.852	1.160

Standardized coefficients

	coeff
EnOr	.650

Covariance matrix of regression parameter estimates:

	constant	EnOr
constant	.044	.116
EnOr	.116	.044

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y

	Effect	se	t	p	LLCI	ULCI	c_cs
	.276	.078	12.833	.000	.852	1.160	.650

Direct effect of X on Y

	Effect	se	t	p	LLCI	ULCI	e'_cs
	0.296	.095	10.739	.000	.830	1.203	.657

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	.170	.060	.1291	.174
ABCA	.001	.056	.101	.116
SoMe	-.012	.031	-.174	.149

Completely standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
TOTAL	-.007	.039	.182	.372
ABCA	.001	.036	.465	.177
SoMe	-.007	.020	-.247	.132

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

----- END MATRIX -----

Entrepreneurial Orientation and the innovation performance of the Algerian start-ups “the mediating role of social media and absorptive capacity”

					The top management favor a strong emphasis on R&D and innovations	Innovativeness (Li et al., 2009)	
					Our senior management is very interested in ways to introduce innovations		
					We seek to expand our markets		
					We radically change our product or services lines quite often		
					We have a strong tendency to high risk projects	Risk-taking (Li et al., 2009)	
					Given the nature of the environment, bold and large-scale action is necessary to achieve corporate goals		
					We take actions, then competitors react.	Proactiveness (Li et al., 2009)	
					Our firm is the first in the market in introducing products or services		
					Our senior managers strive strongly to be one step ahead of others in introducing new ideas or products		
					Our company has independent procedures for an individual or team to come up with an idea or vision and implement it to achievement	Autonomy (Li et al., 2009)	
					Our company has the capacity and the desire to be autonomous in the search for .opportunities		
					Our company operates without stifling regulatory restrictions		
					We develop relations with universities, suppliers, customers, research laboratories or any external partner to explore the technical and commercial potential of new technologies	Networks (Chesbrough et al., 2006)	

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					We can find good external information	Potential Absorptive capacity (Sciascia et al., 2014)
					We can get external information easily	
					We have the tools that help assimilate knowledge	
					We are able to combine the external and internal knowledge	Realized Absorptive capacity (Sciascia et al., 2014)
					We have the means of exploiting gathered knowledge	

					We collect data from social media platforms, control it and integrate it in the our company	Social media use (Freixanet et al., 2021)
					Social media tools enable our company to identify and acquire talents	
					Social media means enable the company to get new ideas	
					We use Social media tools in management	
					Social media tools enable our company to share valuable information	
					We use social media tools to help our customers	

Please state your firm's performance compared to that of your competitors over the last three years with regard to the following items:

					Items	
					Replacement of products/services being phased out	Innovation Performance García-) Granero et (al., 2015
					Market share evolution	
					Entering in new market	
					Improvement of product/service flexibility	
					Reduction of products/services costs	
					Average innovation project development time	
					Average number of innovation	
					Degree of satisfaction with innovation project efficiency	