

# The Impact of Competitive Analysis on the Creation of Marketing Opportunities in Algerian Startups: A Study of the Mediating Role of Marketing Intelligence Using PLS-SEM Structural Equation Modeling

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## Abstract

*This study examines the impact of competitive analysis on the creation of marketing opportunities in Algerian startups, while investigating the mediating role of marketing intelligence. Using a sample of 30 startups and the PLS-SEM approach through SmartPLS 4, the findings reveal that competitive analysis positively influences both marketing intelligence and marketing opportunities. The results also confirm that marketing intelligence partially mediates this relationship, enhancing startups' ability to identify and exploit market opportunities. The study highlights the strategic importance of transforming competitive information into actionable marketing knowledge to strengthen competitiveness and growth.*

**Keywords:** *Competitive Analysis, Marketing Intelligence, Marketing Opportunities.*

*Jel Classification Codes: M31, M13.*

## Introduction

The contemporary business environment is characterized by rapid change and intensifying competition, which has compelled organizations—especially startups—to develop their ability to anticipate market shifts and identify marketing opportunities that ensure growth and sustainability. In this context, competitive analysis has emerged as a strategic approach that enables organizations to collect and analyze information about competitors and the market, thereby supporting effective marketing decision-making.

Marketing intelligence is also a modern mechanism that helps organizations transform available data and information into actionable marketing knowledge, thereby enhancing their ability to identify marketing opportunities and respond to environmental changes more effectively. Despite growing academic interest in the variables of competitive analysis and marketing intelligence, studies addressing the role of competitive analysis in creating marketing opportunities through marketing intelligence as a mediating variable—particularly in the context of Algerian startups—remain limited. Consequently, the research problem can be formulated as the following main question:

**To what extent does competitive analysis contribute to creating marketing opportunities for Algerian startups? And does marketing intelligence play an intermediary role in this relationship?**

To address the research question, the following main hypothesis can be formulated:

Competitive analysis has a statistically significant effect on the creation of marketing opportunities for Algerian startups, and marketing intelligence mediates this relationship.

To fully understand the aspects of the research question and test the hypothesis, the main hypothesis has been divided into the following sub-hypotheses:

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*Hypothesis 1 (H1):*

Competitive analysis has a statistically significant positive effect on marketing intelligence in Algerian startups.

*Hypothesis 2 (H2):*

Marketing intelligence has a statistically significant positive effect on marketing opportunities in Algerian startups.

*Hypothesis 3 (H3):*

Competitive analysis has a statistically significant positive effect on marketing opportunities for Algerian startups.

*Hypothesis 4 (H4):*

Marketing intelligence plays a statistically significant mediating role in the relationship between competitive analysis and marketing opportunities for Algerian startups.

*Significance of the Study*

The significance of this study stems from its contribution to clarifying the mechanisms that enable startups to leverage competitive intelligence and transform it into marketing opportunities, thereby enriching the marketing literature and providing practical insights for decision-makers in such organizations.

**Methodology**

Based on this, this study seeks to analyze the role of competitive analysis in creating marketing opportunities for Algerian startups by testing the mediating role of marketing intelligence. To achieve this objective, a descriptive-analytical approach was adopted, and a questionnaire was used as the primary tool for collecting data from a sample of startups, while structural equation modeling using partial least squares (PLS-SEM) was employed with the **SmartPLS** software to test the relationships between the study variables and verify the proposed hypotheses.

*The Theoretical Framework of the Study**The Concept of Competitive Analysis and Its Dimensions:*

Competitive analysis refers to the strategic analysis aimed at assessing an organization's competitiveness by analyzing its areas of activity within the industry sector (or sectors) in which it operates, Competitive analysis allows, within a dynamic analytical framework, for the identification of the competitive position of each business area within the organization's portfolio. Thus, the objective of competitive analysis is twofold: to determine the effectiveness of each business area, which inevitably involves evaluating the strategies of specific business areas in terms of the degree to which established objectives are achieved.

Based on the results of this analysis, the organization's management can make strategic decisions regarding each business area within its portfolio, whether to support it, maintain it, or divest from it.

Competitor analysis is an important part of the strategic planning process; it is a process of exploring organizations within a single industrial sector where a competitive gap exists, and competition takes place

through products or services to gain a larger market share. This analysis represents an in-depth exploration of competitors.<sup>4</sup>

Competitive analysis tools are also among the most important resources organizations rely on to understand their internal and external environments and make effective strategic decisions. PESTEL analysis is a tool used to examine the political, economic, social, technological, environmental, and legal factors affecting an organization, which helps identify future opportunities and challenges and supports strategic planning. SWOT analysis, on the other hand, focuses on assessing the organization's internal strengths and weaknesses, as well as external opportunities and threats, with the aim of determining its strategic position and selecting appropriate strategies to achieve success and adapt to changes. Meanwhile, Porter's Five Forces model aims to analyze the level of competition and market attractiveness by examining the threat of new entrants, the bargaining power of suppliers and customers, the threat of substitutes, and the intensity of existing competition, thereby helping organizations build a competitive advantage and enhance their ability to survive and grow.

In light of the above and based on previous studies that we will discuss later, we have identified the following dimensions of competitive analysis:

### Information Gathering

Information gathering refers to the process of obtaining data related to competitors, the market, and the organization's operating environment through various internal and external sources. This information includes competitors' prices, product and service quality, market shares, marketing strategies, and technological developments. This aspect forms the basis of the competitive analysis process, as it helps management form a clear picture of the organization's position relative to competitors and contributes to forecasting future opportunities and threats.<sup>5</sup>

### *Competitor Analysis*

This aspect involves studying and analyzing the information gathered to identify competitors' strengths and weaknesses and to understand their strategies and future goals. Competitor analysis also helps an organization assess its competitive position in the market and identify areas that can be improved or developed to achieve a competitive advantage. This includes analyzing products, prices, distribution and promotion methods, and customer satisfaction levels.<sup>6</sup>

### *Competitive Response*

A competitive response refers to the actions and decisions an organization takes based on the results of competitive analysis, with the aim of countering competitors' moves and maintaining or increasing its market share. This response includes product development, quality improvement, price reductions, the adoption of new marketing strategies, or expansion into target markets. This dimension is an indicator of the organization's ability to adapt to competitive changes and achieve sustainability and growth.<sup>7</sup>

### *Marketing Intelligence*

Marketing intelligence was selected as a mediating variable in this study due to its pivotal role in transforming information derived from competitive analysis activities into actionable marketing knowledge. Competitive analysis provides an organisation with information relating to competitors, customers and the

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<sup>4</sup> Hamad Al-Shifa, "The Role of Strategic Information Systems in Analyzing the Competitive Environment of Business Organizations: A Case Study of the Phosphate Mines Company (Tebessa)," *Al-Afak Journal of Economic Studies*, Vol. 1, No. 1, 2020, p. 15.

<sup>5</sup> Muhammad Al-Sairfi, *Strategic Management*, Horus International Foundation, Alexandria, 2007, p. 112.

<sup>6</sup> Porter, Michael E., *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, Free Press, New York, 1980, p. 47.

<sup>7</sup> Ahmed Maher, *Strategic Management: The Scientific Guide to Excellence and Success*, Al-Dar Al-Jami'iyya, Alexandria, 2005, p. 156.

market environment, However, utilising this information to identify marketing opportunities requires mechanisms for collecting, analysing and interpreting it, which is what marketing intelligence provides. Consequently, it is assumed that competitive analysis influences the creation of marketing opportunities indirectly by enhancing the level of marketing intelligence within the organisation.

The first marketing intelligence system was designed and implemented by Dr. Robert Williams in 1961 at the Edward Dalton Foundation. This system serves as the primary means by which marketing management maintains constant and regular communication with current events in the market and the surrounding environment.<sup>8</sup>

Marketing intelligence is defined as: “A coordinated and systematic set of integrated procedures designed throughout the organization to generate, evaluate, and distribute marketing information.”<sup>9</sup>

It is also defined as: “the approach or method that enables the marketing manager to examine and understand the changes occurring in both the general and specific external marketing environments on a permanent, continuous, and ongoing basis.”<sup>10</sup>

It has also been defined as: “The sum of coordinated activities involving research, analysis, and dissemination for the purpose of utilizing information beneficial to economic actors. These activities are carried out within the framework of legality (in accordance with legal frameworks) while providing all necessary safeguards to preserve the institution’s legacy, and this is done under the best quality conditions regarding timelines and costs.”<sup>11</sup>

Thus, it can be said that marketing intelligence consists of all external and internal data collected and analyzed by business organizations regarding markets and used in decision-making. Marketing intelligence can utilize market intelligence to assess market entry opportunities and monitor current and potential threats, as well as identify strengths and weaknesses, along with available resources and the methods employed.

Furthermore, the marketing intelligence system is of great importance due to its significant strategic role within the organization, as it contributes to the organization’s adoption of the concept of environmental management. It gives the organization the ability to influence customers and competitors, which means it transforms the organization from an observer of environmental events to a participant in them. The following table illustrates the key areas of marketing intelligence.

### *Marketing Opportunities*

#### *Definition of Marketing Opportunities:*

Authors have offered numerous and varied definitions of the term “marketing opportunity.” A marketing opportunity is defined as: that key favorable position within the organization’s environment. An opportunity relates to a positive position available in the organizational environment that the organization can exploit to strengthen its position within that environment.<sup>12</sup>

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<sup>8</sup> Chirouze, Yves, *Strategic Marketing: Strategy, Segmentation, Positioning, and Product Policy*, Ellipse, Paris, 2005, p. 89.

<sup>9</sup> Mohammed Abdul Hussein Al-Taie, Taysir Mohammed Al-Ajrma, *Marketing Information Systems: An Introduction to Information Technology*, Dar Al-Isra, Jordan, 2008, p. 76.

<sup>10</sup> Abdulsalam Abu Qahf, *Fundamentals of Marketing*, Al-Isha’a Library, Egypt, 1996, p. 167.

<sup>11</sup> Chirouze, Yves, *op. cit.*, p. 106.

<sup>12</sup> Mahmoud Jassim Mohammed Al-Sumaydi, *Marketing Strategies: A Quantitative and Analytical Approach*, Dar Al-Hamid for Publishing and Distribution, Jordan, 2009, p. 154.

It is also defined as the discovery of unmet needs among one or more consumer segments. It is considered an opportunity only if the company, with its current and future capabilities, is able to satisfy those needs.<sup>13</sup>

Kotler defined a marketing opportunity as “the attractive area of a company’s marketing activities through which it can gain a competitive advantage .” For any organization to analyze marketing opportunities, it must have a clear idea of its goals and capabilities, and there must be a full understanding of the surrounding environmental conditions, market segments, and consumers.<sup>14</sup>

A marketing opportunity is a specific area of attraction that enables the company to achieve its objectives through certain marketing efforts that yield competitive advantages.<sup>15</sup>

It is “a position or area of attraction in which the organization enjoys a competitive advantage over its competitors and lays the foundation for the successful implementation of marketing activities in a way that achieves both marketing and organizational objectives.<sup>16</sup>” The organization can seek out marketing opportunities through the following:<sup>17</sup>

- The competitive advantages of the organization and its products;
- The organization’s strengths in terms of physical and human resources and capabilities;
- Changes in lifestyles and consumption patterns within society;
- The emergence of new technology that provides the organization with a competitive advantage;
- The organization’s advantages, particularly regarding resources, production methods, and marketing operations;
- Changes in consumer tastes and needs;
- Geographical advantages enjoyed by the organization.

#### *The Relationship Between Competitive Analysis and Identifying Marketing Opportunities:*

Competitive analysis is the cornerstone of identifying marketing opportunities, as it enables an understanding of competitors’ weaknesses, market gaps, and changes in customer behavior. This thorough examination transforms data into effective strategies (such as SWOT analysis) that enable the company to differentiate its products, target new segments, and seize growth opportunities before others.

The following details the close relationship between the two:<sup>18</sup>

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<sup>13</sup>Mohammed Al-Sirafi, *Electronic Real Estate Marketing*, Dar Al-Fajr for Publishing and Distribution, Cairo, 2016, p. 84.

<sup>14</sup>Nabila Jaija, Samira Amish, *Exploiting Marketing Opportunities in Economic Institutions—A Case Study: IKEA Furniture*, *Journal of Development and Applied Economics*, University of M’sila, Vol. 05, No. 02, 2021, p. 16.

<sup>15</sup> Khaled Al-Asaf, *Factors Influencing the Exploitation of Marketing Opportunities Through the Story of Prophet Moses (peace be upon him) in Surah Al-Ma’idah from Verse 20 to Verse 2*, *International Journal of Islamic Marketing*, Vol. 6, No. 3, 2017, p. 44,

<sup>16</sup> Samir Brahim and Mostafa Touiti, “The Contribution of Marketing Research to Identifying Marketing Opportunities in the Home Appliance Market in Algeria: A Study of a Sample of Employees at BRANDT,” *Journal of the Economic Researcher*, Vol. 6, No. 2, p. 59.

<sup>17</sup> Samir Brahim and Mostafa Touiti, *op. cit.*, p. 59.

<sup>18</sup> Safari Mohamed, *The Role of Competitive Analysis in Developing an Organization’s Marketing Strategy—A Case Study: Al-Hadna Mills Unit – M’Sila*, Master’s Thesis (Academic) in Management Sciences, Major in Management Sciences, Mohamed Boudiaf University, M’Sila, 2013, p. 53.

- Identifying market gaps: Competitive analysis helps identify unmet customer needs or demographic segments neglected by competitors, presenting a golden opportunity to introduce new products.
- Exploiting Competitors' Weaknesses: By studying competitors' marketing campaigns and pricing, companies can target their weaknesses (such as poor customer service or high prices) to offer a better alternative.
- Developing competitive advantage: Understanding competitors' strategies helps a company enhance its own strengths and uniquely differentiate its products/services.
- Guiding marketing strategy: Analyzing the competitive environment provides the data necessary to develop a fact-based marketing strategy, thereby reducing risk and increasing marketing effectiveness.
- Anticipating threats and turning them into opportunities: Monitoring competitors' moves allows you to stay ahead of market changes and turn potential threats into proactive opportunities.

Marketing opportunities cannot be effectively capitalized on without a clear understanding of the organization's position relative to its competitors.

#### *Previous Studies and Research Gaps*

The current study based its conceptual model on a set of studies that examined the impact of competitive analysis on improving marketing performance and enhancing the ability to identify opportunities, in addition to studies that highlighted the strategic role of marketing intelligence in transforming marketing information into actual marketing opportunities. Below, we will attempt to summarize the most important of these studies:

- Linking Competitive Intelligence, Learning Orientation and Export Performance of SMEs Ejiken Emmanuel, Isichei, Ike Nnia, Agbaczs Kalu Emmanuel, Anthonyigwe, chukwizenjamin Ibe, Godwin Iyuwuna Dodd Peterside, 2003

This study aimed to examine the effect of competitive analysis on the export performance of small and medium-sized enterprises (SMEs) while investigating the mediating role of educational orientation. The researcher utilized educational orientation as the mediating variable in this study by employing structural equation modeling (SEM). The study found that competitive analysis has a positive and significant effect on performance, in addition to a significant mediating role of educational orientation in the relationship between the two variables, which confirms the importance of competitive analysis in improving organizational performance.

#### *Research Gap:*

The current study differs from that of Isichei et al. (2023) in that it relies on marketing intelligence as a mediating variable rather than educational orientation, and focuses on the creation of marketing opportunities within Algerian startups.

- Zaenaf Aripin uce karna suganda, Allizia kusumah, marketing intelligence : innovation ability to anticipate global competition, international journal of research in business and social science IJRBS (2147-4478), Vol (11) N1, 2022 January

This study by Aripin et al. (2022) aimed to analyze the impact of marketing intelligence on the entrepreneurial performance of small and medium-sized enterprises using structural equation modeling (SEM). It also examined the roles of innovation and competitive advantage within the proposed model. The study found a direct and statistically significant effect of marketing intelligence on entrepreneurial

performance, in addition to its contribution to supporting innovation and enhancing the competitiveness of small and medium-sized enterprises.

#### *Research Gap:*

The current study differs from the study by Aripin et al. (2022) in its focus on the mediating role of marketing intelligence between competitive analysis and marketing opportunities, rather than examining its relationship with entrepreneurial performance alone, in addition to its application to start-ups in Algeria.

- Bev Hulbert, Audrey Gilmore, David Carson, Opportunity recognition by grouping SEMs: amanagerial or entrepreneurial function? Journal of strategic marketing, vol 23, 2015.

The study by Hulbert et al. (2015) aimed to analyze how small and medium-sized enterprises (SMEs) identify opportunities in a changing competitive environment; the study relied on in-depth interviews with a number of SME managers. It concluded that opportunity discovery relies primarily on market knowledge and continuous analysis of competitive information, and it confirmed that identifying opportunities is a strategic and managerial process linked to the firm's ability to analyze the market environment and understand competitors.

From the above, it can be said that although previous studies have addressed competitive analysis and marketing intelligence in detail, the link between them in explaining the creation of marketing opportunities within Algerian start-ups remains limited.

#### *Empirical Framework of the Study*

##### *Field Study Methodology*

##### *Methodology Used in the Study*

The researcher adopted the descriptive-analytical approach, which is characterized by its ability to facilitate a comprehensive and in-depth analysis of the problem under study. It is one of the most appropriate scientific approaches for this type of study, as it is suitable for testing causal relationships between study variables and verifying proposed hypotheses.

##### *Study Population and Sample*

The field study population consists of all startups with a "Label" certification operating in Algeria, belonging to diverse economic sectors such as services, technology, and industry, given their vital role in supporting innovation and value creation. Due to the small size of the study population, a representative sample of 30 startups was selected using a purposive sampling method, as this was deemed the most appropriate approach to reach organizations exhibiting the study's characteristics, particularly those applying competitive analysis practices. The respondents were company managers, marketing officials, or decision-makers, as they are most familiar with competitive strategies and marketing opportunities within their organizations, ensuring the collection of accurate and reliable data that serves the study's objectives. To analyze the data and test the hypotheses, SmartPLS version 4 was used, given its suitability for small samples and relatively complex predictive models. The following table illustrates the study sample:

**Table 1: Study Sample**

Variable	Category	Frequency	Percentage
Activity	Services	12	%40
Activity	Technology	10	%33.3
Activity	E-commerce	8	%26.7

**Source: Prepared by a researcher**

The table above shows that most of the startups under study operate in the services sector (40%), which reflects the nature of the economic environment for Algerian startups

*Research Tools*

Based on the study's hypotheses, the questionnaire was designed with questions selected to align with the research themes and previous studies. The questions were divided into two themes:

The first theme: This theme includes demographic variables (gender and age), educational level, sector of activity, and age of the enterprise.

The second theme: This consists of the study variables, which were defined as follows:

- Dimensions of the independent variable (competitive analysis), namely (information gathering, competitor analysis, and competitive response), with each dimension comprising four (4) statements.
- The mediating variable: marketing intelligence, used to improve the relationship between the independent variable (competitive analysis) and the dependent variable (marketing opportunities), includes five (5) items.
- Dimensions of the dependent variable "marketing opportunities" (opportunity discovery, opportunity exploitation, and marketing innovation) each include four (4) items, distributed as shown in the following table:

**Table 2: Description of the Form's Content**

Axis	Dimensions	Number of Items
Personal Information	Gender	1
	Age	1
	Education Level	1
	Industry	1
	Company Age	1
Competitive Analysis	Data Collection	4
	Competitor Analysis	4
	Competitive Response	4
Intermediary Variable	Marketing Intelligence	5
Marketing Opportunities	Opportunity Identification	4

	Opportunity Exploitation	4
	Marketing Innovation	4

**Source: Prepared by the researcher**

Table 2 utilized the five-point Likert scale, which is used to measure attitudes. Under this scale, respondents rate their level of agreement or disagreement with a set of statements or items. It is considered one of the most widely used scales for measuring opinions due to its ease of understanding and balanced rating levels. The number 5 was assigned to the “strongly agree” level, and the number 1 to the “strongly disagree” level. The weighting of each response according to the five-point Likert scale is shown in the following table:

**Table 3: Five-Point Likert Scale for Weighting Responses**

Answer	Strongly disagree	Disagree	Somewhat neutral	Agree	Strongly agree
	1	2	3	4	5

**Source: Prepared by the researcher**

#### *Statistical Methods Used*

- To describe the characteristics of the study sample and analyze respondents’ opinions regarding the questionnaire items, as well as to measure the validity and reliability of the instrument and test the study hypotheses, we relied on the Statistical Package for the Social Sciences (SPSS) and the SMART PLS 4 software to calculate descriptive statistics.

- SMART PLS 4 software was used to test the general model of the study using structural equation modeling (SEM).

#### *Methodological Steps for Applying PLS Smart 4*

After determining the study’s theoretical and structural model and collecting data using the study instrument (the questionnaire), another phase of the field study begins: evaluating the reliability and validity of the study’s measurement model by assessing reliability using Cronbach’s alpha test, composite reliability (CR), and convergent validity. As a second step, the discriminant validity of the model is verified using the Fornell and Larck criterion. Once it has been verified that the study data are reliable and valid Based on the aforementioned criteria, the researcher can then evaluate the validity of the structural model using a set of fundamental criteria, primarily consisting of assessing the appropriateness of path coefficients and the R<sup>2</sup> coefficient, in addition to the effect size (f<sup>2</sup>). Finally, the effects of mediators—the analysis of which has become a standard in research—are addressed. Based on the outputs of the SEM-PLS software, the researcher interprets the findings and draws final conclusions.

Based on the study’s predefined hypotheses and grounded in the theoretical literature, the structural model for the study was constructed using SmartPLS 4 software. The following figure illustrates the hypothesized causal relationships and the direct and indirect paths between the independent variable (competitive analysis and its dimensions), the mediating variable (marketing intelligence), and the dependent variable (marketing opportunities and their dimensions):"

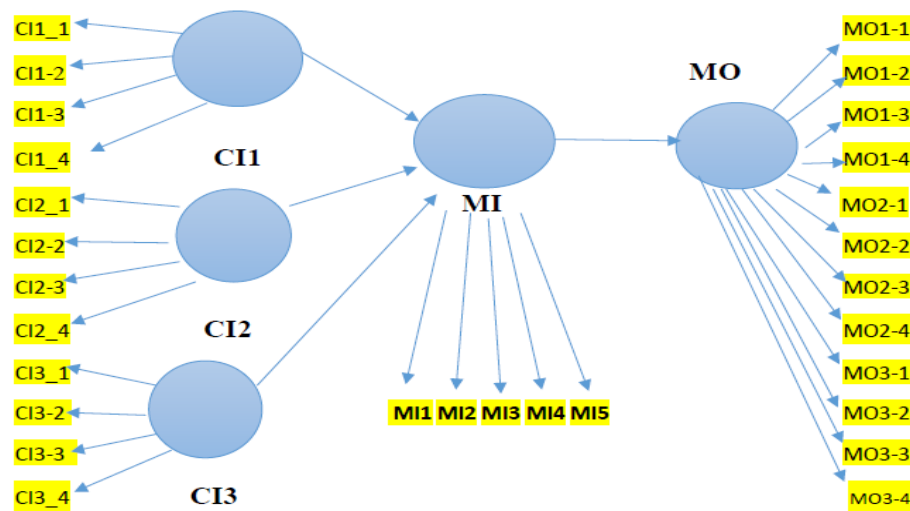


Figure 1: Final Structural Model of the Study

**Source:** Prepared by the researcher based on the output of the Smart PLS 4 software

#### *Descriptive Statistics of the Study Data*

#### *Analysis of Sample Attitudes Toward Study Variables Related to Competitive Analysis and Marketing Intelligence*

Table 4: Analysis of the First Dimension of the Independent Variable (Competitive Information Gathering)

Code	Items	Mean Standard	Deviation	
CI1_1	The organization regularly collects information about its competitors	0.70	3.95	High
CI1-2	The organization relies on multiple sources to obtain market information	0.73	3.88	High
CI1-3	The organization uses up-to-date data in its competitive analysis	0.69	3.92	High
CI1_4	The organization relies on digital sources to collect information	0.75	3.95	High
<b>Overall average</b>		<b>0.72</b>	<b>3.90</b>	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software

Table 4 shows that the arithmetic means for the items in the “Gathering Competitive Information” dimension ranged from 3.95 and 3.88, and the standard deviations ranged between 0.69 and 0.75; standard deviation values below 1 indicate that the responses are concentrated and not scattered, suggesting that there is convergence in the responses for the majority of the study’s items.

Table 5: Analysis of the second dimension of the independent variable (competitor analysis).

Code	Items	Mean Standard	Deviation	
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CI2_1	The organization analyzes the strengths and weaknesses of its competitors	3.87	0.68	High
CI2-2	The organization uses effective competitive analysis tools	3.82	0.71	High
CI2-3	The organization relies on data analysis to understand the market	3.80	0.70	High
CI2_4	The organization periodically compares its performance with that of its competitors	3.90	0.66	High
<b>Overall average</b>		3.85	0.69	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS 4 software

Table 5 shows that the arithmetic means for the items in the competitor analysis dimension ranged between 3.90 and 3.80, and the standard deviations ranged between 0.66 and 0.71 ; standard deviation values below 1 indicate that the responses are concentrated and not scattered, suggesting that there is convergence in the responses for the majority of the study's items. Overall, it appears that the level of importance for the competitive analysis dimension is high.

**Table 6: Analysis of the Third Dimension of the Independent Variable (Competitive Response)**

Code	Items	Mean Standard	Deviation	
CI3_1	The organization responds quickly to competitors' moves.	3.75	0.76	High
CI3-2	The organization adjusts its strategies based on the competition.	3.80	0.72	High
CI3-3	The organization makes marketing decisions based on competitive analysis.	3.82	0.70	High
CI3_4	The organization is flexible in responding to market changes.	3.70	0.78	High
<b>Overall average</b>		3.77	0.74	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 6 shows that the arithmetic means for the items of the competitive response dimension ranged between 3.70 and 3.82, and the standard deviations ranged between 0.70 and 0.78 ; standard deviation values below 1 indicate a concentration of responses rather than dispersion, suggesting that the majority of study items yielded convergent responses. Overall, this indicates the level of importance of the competitive response dimension.

**Table 7: Analysis of the Mediating Variable, Marketing Intelligence**

Code	Items	Mean Standard	Deviation	
MI1	The organization relies on marketing information to make various decisions.	3.82	0.72	High
MI2	The organization uses available data to analyze the market and customer needs.	3.78	0.75	High
MI3	The organization makes its marketing decisions based on accurate and reliable information.	3.90	0.68	High
MI4	The organization responds quickly to market changes based on the information available to it.	3.74	0.77	High
MI5	The organization employs data analysis tools to support its marketing decisions and activities.	3.85	0.71	High
<b>Overall average</b>		<b>3.82</b>	<b>0.73</b>	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 7 shows that the arithmetic means for the items of the mediating variable (marketing intelligence) ranged between 3.74 and 3.90, with standard deviations ranging between 0.68 and 0.75; the overall arithmetic mean was 3.83 and the overall standard deviation was 0.73. Standard deviation values below 1 indicate that responses are concentrated rather than scattered, suggesting that the majority of study participants' responses were similar. This indicates that, according to the perceptions of the study sample, marketing intelligence is at a high level.

An interpretation of the results shown in the table indicates that the level of marketing intelligence among startups is high (3.82), suggesting a clear tendency toward using information and data to support marketing decisions. However, the relatively low score for the “speed of response” item reveals a gap between possessing information and actually utilizing it in a timely manner. Thus, it can be said that organizations are capable of analysis but are less efficient in rapid implementation.

#### *Analysis of Sample Trends Regarding Study Variables Related to Marketing Opportunities*

**Table 8: Analysis of the First Dimension of the Dependent Variable (Opportunity Discovery).**

Code	Items	Mean Standard	Deviation	
MO1-1	The organization identifies new market opportunities.	3.95	0.68	High
MO1-2	The organization relies on market analysis to identify opportunities.	3.90	0.70	High
MO1-3	The organization continuously monitors market changes.	3.85	0.72	High

MO1-4	The organization anticipates future market trends	3.80	0.75	High
<b>Overall average</b>		3.88	0.71	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 8 shows that the arithmetic means for the items in the competitive response dimension ranged between (3.80) and (3.95), and the standard deviations ranged between (0.68) and (0.75); standard deviation values below 1 indicate that responses are concentrated and not scattered, suggesting that there is convergence in responses for the majority of the study's items. Overall, it appears that the level of importance for the opportunity discovery dimension The results indicate that startups possess a high capacity to identify marketing opportunities, particularly through market analysis and monitoring changes.

**Table 9: Analysis of the First Dimension of the Dependent Variable (Opportunity Utilization).**

Code	Items	Mean Standard	Deviation	
MO2-1	The organization effectively capitalizes on marketing opportunities.	3.82	0.74	High
MO2-2	The organization turns opportunities into actual projects.	3.78	0.76	High
MO2-3	The organization has the ability to act on opportunities quickly.	3.75	0.77	High
MO2-4	The organization allocates sufficient resources to capitalize on opportunities.	3.70	0.79	High
<b>Overall average</b>		3.76	0.77	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 9 shows that the arithmetic means for the items measuring competitive response ranged from 3.70 to 3.82 and the standard deviations ranged between 0.74 and 0.79; standard deviation values below 1 indicate that the responses are concentrated and not scattered, suggesting that there is convergence in the responses for the majority of the study's items. Overall, it appears that the level of importance for the dimension of opportunity exploitation Although the level of opportunity exploitation is high, it is lower than the level of opportunity identification, reflecting a gap between recognizing opportunities and converting them into actual projects.

**Table 10: Analysis of the First Dimension of the Dependent Variable (Marketing Innovation)**

Code	Items	Mean Standard	Deviation	
MO3-1	The company relies on innovation in developing its products.	3.92	0.69	High
MO3-2	The company introduces new marketing ideas.	3.88	0.71	High

MO3-3	The company strives to stand out from its competitors.	3.85	0.73	High
MO3-4	The company relies on innovative marketing strategies.	3.90	0.70	High
<b>Overall average</b>		3.89	0.71	<b>High</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 10 shows that the arithmetic means for the items measuring the competitive response dimension ranged from 3.85 to 3.92, and the standard deviations ranged from 0.69 to 0.73 ; standard deviation values below 1 indicate that responses are concentrated and not scattered, suggesting that there is convergence in responses for the majority of the study's items. Overall, it appears that the level of importance for the marketing innovation dimension reflects a high level of marketing innovation among startups, indicating their pursuit of excellence through the introduction of new ideas and strategies.

#### *Analysis and Evaluation of the General Model of the Study*

Based on the fundamental stages of statistical analysis through structural equation modeling, the data will be analyzed using path models in two main stages. First, to ensure that the collected data meet the criteria of the measurement model, and second, to evaluate the structural model (Structural Model) to verify the validity of the proposed model, as follows:

#### *Analysis of the Measurement Model*

**A. Reliability Assessment Using Cronbach's Alpha** Cronbach's alpha: assumes that all indicators are equally reliable, but SEM-PLS prioritizes indicators based on their individual reliability. The following table provides Cronbach's alpha values for the latent variables:

**Table 11: Cronbach's Alpha Coefficient for Study Variables**

Variable	Alpha
<b>Competitive Intelligence (CI)</b>	0.88
<b>Marketing Intelligence (MI)</b>	0.86
<b>Marketing Opportunities (MO)</b>	0.89

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

The table above shows that all Cronbach's alpha coefficients for the study variables are statistically significant and acceptable, as their values are greater than 0.7, which is consistent with the composite reliability index.

**B. Composite Reliability (CR):** Composite reliability ranges from 0 to 1, where higher values indicate higher levels of reliability. It is generally interpreted in the same way as Cronbach's alpha specifically. Composite reliability values ranging from 0.6 to 0.7 are acceptable in exploratory research, while in more advanced stages of research, values between 0.7 and 0.9 may be considered acceptable. Values exceeding 0.95 are undesirable because they indicate that all indicator variables measure the same phenomenon and thus are unlikely to be a valid measure of the construct. The following table illustrates the composite reliability results:

Table 12: Composite Reliability Coefficient (CR)

Variable	Items	CR
Competitive Intelligence (CI)	12	0.92
Marketing Intelligence (MI)	5	0.91
Marketing Opportunities (MO)	12	0.93
Overall Stability	29	0.92

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

From the table above, we observe that all CR coefficients are statistically significant and acceptable because they are greater than 0.7, which indicates a correlation among the study items in measuring the latent variables and, consequently, the reliability of the measurement model used.

**C. Convergent Validity Test:** This was conducted by calculating the Average Variance Extracted (AVE) to assess the degree of consistency among the items used to measure the convergence and agreement of the indicators with one another. The following table presents the test results:

Table 13: Approximate Validity Index (AVE)

Variable	Items	AVE
Competitive Intelligence (CI)	12	<b>0.63</b>
Marketing Intelligence (MI)	5	0.66
Marketing Opportunities (MO)	12	0.68
Overall Stability	29	0.66

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

From the table above, we observe that all AVE values are statistically significant and acceptable because they are greater than 0.5. This indicates that each variable explains more than half of the variance in its respective index, meaning there is consistency among the items; thus, convergent validity has been achieved in this model.

**D. Discriminant Validity** Discriminant validity refers to the degree to which variables differ from one another; in other words, each variable represents itself and not the other variables. This ensures that the variables used are not redundant. To verify discriminant validity, the study relied on the criterion (Fornell and Larcker).

Table 14: Results of the Fornell and Larcker criterion

Variable	CI	MI	MO
CI	<b>0.79</b>	0.72	0.75
MI	0.72	<b>0.81</b>	0.78
MO	0.75	0.78	<b>0.82</b>

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

As shown in Table 14 above, the results of the Fornell and Larcker criterion indicate that each variable is more strongly correlated with itself than with any other variable. For example, the variable “marketing opportunities for startups” achieved a correlation coefficient of 0.82 with itself, while it achieved the following values with the other variables: 0.75, 0.78), with the latter being lower than 0.82. The same applies to the remaining variables. Therefore, the variables used are not redundant, and there is no overlap or correlation among them. Consequently, according to this criterion, the discriminant validity of the study instrument is established.

### *Structural Model Analysis*

After accepting the results of the convergent and discriminant validity measures for the standard model, evaluating the measurement model, and confirming its validity, the next step is to evaluate the validity of the structural model. This is done by examining the model’s predictive power, the relationships among the study variables, and evaluating the regression models as follows:

#### *A. Coefficient of Determination ( $R^2$ )*

This coefficient represents a measure of the model’s predictive power and is calculated as the square of the correlation between the observed and predicted values of the structural model. The following table shows the results of the coefficient of determination ( $R^2$ ) for the dependent variable.

**Table 15: Coefficient of Determination ( $R^2$ ) Results**

Dependent variable	$R^2$	Result
Marketing Intelligence (MI)	0.31	Interpretation strength: Moderate
Marketing Opportunities (MO)	0.57	Interpretation strength: Moderate to strong

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 15 shows that the  $R^2$  coefficient for the dependent variable “marketing opportunities for startups” is estimated at 0.57, a value that falls within the category of moderate to strong explanatory power, which is highly significant; According to Hair et al.<sup>19</sup>,  $R^2$  values exceeding 0.50 are considered moderate to strong in terms of explanatory power. Since  $R^2$  exceeds 0.25, the explanatory power of all independent variables (competitive analysis)—information gathering, competitor analysis, and competitive response—on the dependent variable is high. The results of the  $R^2$  coefficient for the mediating variable, marketing intelligence, indicate a value of (0.31), which falls within the category of moderate explanatory power; since  $R^2$  exceeds 0.25, marketing intelligence mediates the relationship between competitive analysis and marketing opportunities for startups in Algeria.

#### *B. Effect Size ( $F2$ ) of External Variables:*

The effect size coefficient ( $F2$ ) explains the ability of each independent variable, individually, to explain the dependent variable, and explains the ability of each independent variable to explain the mediating variable.

<sup>19</sup> Hair et al. who are leading figures in the development and dissemination of **Partial Least Squares Structural Equation Modeling (PLS-SEM)**. Their collaborative work has become a cornerstone reference for researchers using quantitative modeling in business, marketing, and social sciences

Table 16: Effect Size (F2) Results

Dependent variable	F <sup>2</sup>	Interpretation
CI- MI	0.46	Significant impact
MI- MO	0.30	Moderate to significant impact
CI-MO	0.12	Minimal impact

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

Table 16 shows that the effect size (F2) results indicate that the effect sizes for the study variables range from 0.12 to 0.46, suggesting variation in effect size across the buildings. We find that the effect of competitive analysis on marketing intelligence is significant at 0.46, meaning that competitive analysis plays a major role in building marketing intelligence within the startups under study and cannot be ignored in the model. Similarly, the effect of marketing intelligence on marketing opportunities is moderate to large, meaning that marketing intelligence is a pivotal factor in transforming information into real marketing opportunities. As for the direct effect of competitive analysis on marketing opportunities, it is weak; that is, the direct effect of competitive analysis is limited compared to the indirect effect via marketing intelligence, which reinforces the hypothesis of the mediating role of this variable.

C. **Predictive Quality (Q<sup>2</sup>):** This measure is used as an indicator of out of-sample predictive ability or predictive fit when the PLS model exhibits a predictive relationship.

Table 17: Prediction Quality Values for the Dependent Variable Q<sup>2</sup>

Dependent variable	Q <sup>2</sup>
Marketing Intelligence (MI)	0.21
Marketing Opportunities (MO)	0.38

**Source:** Prepared by the researcher based on the output of the Smart PLS4 software

We note that the predictive quality value for marketing opportunities and the mediating variable, marketing intelligence (Q<sup>2</sup>), is greater than zero; that is, it is statistically significant and acceptable. From this, we can conclude that the study model exhibits high predictive accuracy.

### Testing the Study Hypotheses

In this section of our study, we sought to address the research problem by highlighting the role of competitive analysis in creating marketing opportunities in the startups under study. To bridge the gap between theory and practice and achieve the study's objective, we conducted an applied study using tools that enabled us to access the necessary information, which helped us to reach final results, after testing the hypotheses and relying on the following indicators: the path coefficient  $\beta$ , the t-value, and the p-value for testing the significance of causal relationships in the structural model based on the Bootstrapping technique with 5,000 subsamples, which is considered one of the most appropriate methods for PLS-SEM models, especially with small samples.

Table 18: Testing the Study Hypotheses

Hypothesis	Relationship	$\beta$	T	P
H1	CI → MI	0.56	5.10	0.000
H2	MI → MO	0.43	3.80	0.000
H3	CI → MO	0.29	2.45	0.014

<b>H4</b>	CI → MO →	MI	0.24	3.20	0.001
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**Source:** Prepared by the researcher based on the output of the Smart PLS4 software.

#### *Analysis of Hypothesis H1*

Hypothesis H1 states the following: There is a statistically significant effect of competitive analysis on marketing intelligence among the startups under study.

The results of the statistical analysis showed a positive and statistically significant effect of competitive analysis on marketing intelligence, with a path coefficient of  $\beta = 0.56$ , a value that reflects the strength of the relationship between the two variables. The calculated T-value was 5.10, which is greater than the critical value of 1.96, while the p-value was  $P = 0.000$ , which is less than the accepted significance level of 0.05. Therefore, the first hypothesis is accepted, indicating that startups' reliance on competitive analysis significantly contributes to enhancing their marketing intelligence capabilities by improving their ability to collect, analyze, and utilize market information in making marketing decisions.

#### *Analysis of the Second Hypothesis H2*

The second hypothesis states the following: There is a statistically significant effect of marketing intelligence on the marketing opportunities of the startups under study

The results of the statistical analysis showed a positive and statistically significant effect of competitive analysis on marketing intelligence, with a path coefficient of  $\beta = 0.43$ , while the calculated T-value was (3.80), which exceeds the statistically acceptable threshold, while the p-value was  $P = 0.000$ , which is below the accepted significance level of 0.05. Therefore, the second hypothesis is accepted, which highlights the importance of marketing intelligence in helping startups identify and efficiently exploit marketing opportunities by improving their ability to understand the market and customer needs and predict environmental changes.

#### *Analysis of Hypothesis H3*

Hypothesis H3 states the following: There is a significant effect of competitive analysis on the marketing opportunities of the startups under study.

The results of the statistical analysis showed a positive and statistically significant effect of competitive analysis on marketing opportunities, with a path coefficient of  $\beta = 0.29$ , while the calculated T-value was (2.45), which exceeds the statistically acceptable threshold, while the p-value was  $P = 0.014$ , which is lower than the accepted significance level of 0.05. Therefore, the third hypothesis is accepted, confirming that competitive analysis directly contributes to the creation of marketing opportunities; however, this effect remains weaker compared to the indirect effect via marketing intelligence.

#### *Analysis of Hypothesis H4*

Hypothesis H4 states the following: Marketing intelligence plays a mediating role in the relationship between competitive analysis and marketing opportunities among the startups under study.

The results of the mediation test revealed a positive, indirect, and statistically significant effect of competitive analysis on marketing opportunities via marketing intelligence, with an indirect effect coefficient of  $\beta = 0.24$ , a calculated T-value of 3.20, and a p-value of 0.001.

These results indicate that marketing intelligence partially mediates the relationship between competitive analysis and marketing opportunities. It not only directly influences the creation of marketing opportunities

but also contributes to enhancing marketing intelligence, which in turn serves as a strategic mechanism for transforming competitive information into actual marketing opportunities.

## Discussion of the Study's Findings

This result of the first hypothesis can be explained by the fact that competitive analysis provides start-ups with information regarding competitors, customers, and the market environment, thereby enhancing their ability to generate accurate marketing information and support the marketing decision-making process. This finding is consistent with the study by Isichei et al., which emphasized the importance of competitive analysis in improving organizational performance through the utilization of competitive intelligence.

The result of the second hypothesis reflects the vital role of marketing intelligence in enabling startups to anticipate market needs and discover new marketing opportunities, which helps them respond quickly to environmental changes and enhance their competitiveness. This result is also consistent with the study by Aripin et al., which highlighted the importance of marketing intelligence in supporting performance and innovation.

The results of the fourth hypothesis test indicate that competitive analysis does not merely lead directly to the creation of marketing opportunities; rather, a significant portion of its impact is mediated through marketing intelligence, as the firm transforms competitive information into actionable marketing knowledge for discovering new opportunities and developing marketing initiatives.

## Conclusion

This study aimed to analyze the role of competitive analysis in creating marketing opportunities for Algerian startups, while testing the mediating role of marketing intelligence in this relationship. The results revealed a positive and statistically significant effect of competitive analysis on marketing intelligence and marketing opportunities, and confirmed a positive effect of marketing intelligence on the creation of marketing opportunities, in addition to demonstrating its mediating role in the relationship between the two variables.

These results underscore the importance of startups adopting competitive analysis practices and developing their capabilities in the field of marketing intelligence, enabling them to leverage available information and transform it into marketing opportunities that support their growth and enhance their competitiveness. In light of this, the study recommends investing in systems for collecting and analyzing marketing and competitive intelligence, while encouraging future studies to expand the scope of research through larger samples and additional relevant variables.

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