

Strategic Intelligence as a Driver of Entrepreneurial Decision Quality: Examining the Mediating Role of Scientific Knowledge through PLS-SEM in Condor Electronics Algeria

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Abstract

This study aims to analyze the impact of strategic intelligence, in its various dimensions, on the quality of entrepreneurial decision-making, while examining the mediating role of scientific knowledge in explaining the relationship between them. This analysis is conducted within the context of rapidly evolving digital business environments, particularly The Algerian company Condor Electronics. The study employed Structural Equation Modeling (SEM) using SmartPLS software and encompassed seven dimensions of strategic intelligence: foresight, strategic vision, partnership, systems thinking, motivation, intuition, and creativity. The results revealed that strategic intelligence is the most influential variable on the quality of entrepreneurial decisions, with a direct impact factor of $\beta = 0.462$. Scientific knowledge also significantly influences decision quality ($\beta = 0.278$) and plays a significant mediating role in the relationship between strategic intelligence and decision quality ($\beta = 0.116$). The findings indicate that the dynamic dimensions of strategic intelligence intuition, motivation, creativity, and partnership, contribute most significantly to the development of scientific knowledge, while the impact of planning dimensions such as systems thinking and strategic vision was limited or non-significant. These findings reflect the nature of digital entrepreneurial environments, which rely on innovation, experimentation, and rapid learning. The study underscores the importance of integrating strategic intelligence with scientific knowledge to enhance the quality of entrepreneurial decision-making in contemporary digital companies.

Keywords: Strategic intelligence, entrepreneurial decision quality, digital knowledge, financial technology, structural equation modeling.

Introduction

The contemporary world is witnessing an acceleration in digital transformation, leading to a profound shift in strategic thinking and decision-making methods within organizations. The ability to strategically anticipate and predict changes has become essential for success in a complex and uncertain environment (Teece, 2018, p. 42). In this context, strategic intelligence has emerged as an

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organizational capability that combines analysis, foresight, and digital literacy. It is defined as the ability to collect, analyze, and interpret internal and external environmental information to make effective strategic decisions (Hussein & Omar, 2022, p. 88). Strategic intelligence has also become a pivotal component of the dynamic capabilities that enable organizations to continuously adapt (Miller & Le Breton-Miller, 2020, p. 77).

In the field of entrepreneurship, the quality of entrepreneurial decisions is a significant performance indicator, as it depends on the accuracy and relevance of the decisions made by entrepreneurial leaders (Kraus et al., 2021, p. 115). Recent literature indicates that decision quality is not solely dependent on the availability of information, but also on the leader's ability to interpret it within the organizational context (Csaszar et al., 2024, p. 14). Digital literacy emerges as a key factor linking strategic intelligence and decision quality, enabling organizations to transform big data into high-value strategic knowledge (Massa et al., 2023, p. 330). Furthermore, the adoption of advanced digital infrastructures such as artificial intelligence and data analytics contributes to improving the quality of entrepreneurial decisions (Olszak & Ziemba, 2021, p. 119).

The literature demonstrates a complementary relationship between strategic intelligence and digital literacy; the former provides the interpretive framework for information, while the latter enhances the efficiency of data collection and analysis (Massa et al., 2023, p. 335). Sweden is a leading example of this integration, with technology-driven companies like Condor Electronics relying on strategic intelligence and predictive analytics in their entrepreneurial decisions (Csaszar et al., 2024, p. 17). However, studies indicate a research gap regarding the lack of clarity surrounding the mediating role of digital knowledge in the relationship between strategic intelligence and the quality of entrepreneurial decisions (Massa et al., 2023, p. 340). Therefore, this study aims to analyze this impact within an advanced digital environment.

Accordingly, the study's central question is: What is the impact of strategic intelligence on the quality of entrepreneurial decisions at Condor Electronics, and what role does digital knowledge play as a mediating variable in this relationship?

Research Questions

Based on the research problem, this study seeks to answer the following questions:

1. What is the nature of the relationship between strategic intelligence and the quality of entrepreneurial decisions in technology-driven companies like Condor Electronics?
2. To what extent does strategic intelligence influence the development of digital knowledge in entrepreneurial organizations?
3. How does digital knowledge affect the quality of entrepreneurial decisions?
4. To what extent does digital literacy play a statistically significant mediating role in the relationship between strategic intelligence and the quality of entrepreneurial decisions?

Study Objectives

This study aims to achieve a set of scientific and practical objectives, most notably:

1. Analyzing the impact of strategic intelligence on the quality of entrepreneurial decisions in an advanced digital environment.
2. Determining the role of digital literacy in supporting the relationship between strategic intelligence and the quality of entrepreneurial decisions.
3. Testing the mediating role of digital literacy in the relationship between strategic intelligence and the quality of entrepreneurial decisions.
4. Constructing an integrated explanatory model that combines the three concepts: strategic intelligence, digital literacy, and the quality of entrepreneurial decisions.

Study Hypotheses

Based on the theoretical framework and a review of previous studies, the following hypotheses are formulated:

- Hypothesis 1 (H1): There is a statistically significant impact of strategic intelligence and its dimensions on the quality of entrepreneurial decisions.
- Hypothesis 2 (H2): There is a statistically significant impact of strategic intelligence and its dimensions on digital literacy.
- Hypothesis 3 (H3): There is a statistically significant impact of digital literacy on the quality of entrepreneurial decisions.
- Hypothesis 4 (H4): Digital knowledge plays a statistically significant mediating role in the relationship between strategic intelligence and its dimensions, and the quality of entrepreneurial decisions.

Importance of the Study

The world is witnessing an acceleration in digital transformation, which has necessitated the adoption of strategic intelligence as a fundamental capability for collecting and analyzing information and supporting the quality of entrepreneurial decisions. Digital knowledge emerges as a mediating element that enables organizations to transform data into strategic value, especially with artificial intelligence and predictive analytics technologies. The Algerian company Condor Electronics represents an important model for the integration of strategic intelligence and digital knowledge, given its increasing reliance on intelligent systems, databases, and digital transformation in its production, marketing, and decision-making processes. This study aims to clarify the role of this integration according to dynamic capability theory.

The Scientific Gap

A literature review reveals that the relationship between strategic intelligence and the quality of entrepreneurial decisions through digital knowledge remains unclear. Studies have focused on digital transformation without analyzing the internal knowledge structure (Massa et al., 2023). Furthermore, digital knowledge has been treated as an external factor rather than a mediator (Olszak & Ziemia, 2021). Kraus et al. (2021) emphasize the need for a model that integrates these variables, which is the aim of this study within the Algerian company of Condor Electronics.

The Company Under Study

Condor Electronics is one of the leading industrial companies in Algeria. Founded in 2002 as an industrial subsidiary of the Benhamadi Group, the company manufactures electronic devices, household appliances, and smartphones, creating an environment rich in strategic and entrepreneurial decision-making. Strategic intelligence is a pivotal element in its operations, serving as the foundation for analyzing the competitive landscape, anticipating technological trends, and guiding innovation and expansion choices. Within the framework of digital transformation, Condor is increasingly relying on digital knowledge through digital systems for production management, data analysis, and quality control, thereby enhancing the accuracy of information available to decision-makers. This knowledge plays a mediating role, contributing to the increased effectiveness of strategic intelligence within the organization.

This interaction is reflected in the quality of entrepreneurial decisions, as the application of strategic intelligence, supported by digital knowledge, leads to more accurate and flexible innovative decisions. Therefore, Condor represents a suitable model for studying the relationship between strategic intelligence, digital knowledge, and the quality of entrepreneurial decisions.

Research Methodology

This study adopted a descriptive, analytical, and quantitative approach to examine the relationship between strategic intelligence and the quality of entrepreneurial decisions, while also testing the mediating role of digital knowledge. PLS-SEM structural equation modeling was used using SmartPLS software, given its suitability for multidimensional models.

The study population consisted of Condor Electronics Algeria, a technology-based industrial company that relies on digital transformation and strategic intelligence in its operations. The sample included 150 executives, strategic, and digital transformation leaders, selected purposively, and the questionnaire was distributed electronically via professional email.

The study used a closed-ended questionnaire comprising three dimensions: measuring strategic intelligence across its seven aspects, measuring digital literacy as a mediating variable, and measuring the quality of entrepreneurial decisions according to the criteria of accuracy, speed, and relevance using a five-point Likert scale.

Data analysis was conducted in two phases:

1. External model testing through reliability (Cronbach's Alpha and CR), validity (AVE), and multicollinearity testing (VIF).
2. The internal model was analyzed using Bootstrapping, Effect Size (F^2), Explanatory Power (R^2), Predictive Power (Q^2), and Model Quality (GoF). The study was conducted from May to September 2025.

Theoretical Framework

First: Conceptual Definitions of Variables

1. Strategic Intelligence

Strategic intelligence is a relatively modern concept that combines rational analysis, intuitive abilities, and future vision in strategic management. It is defined as the ability to anticipate the future, build clear strategic visions, and employ systems thinking, creativity, intuition, partnership, and motivation in strategic decision-making (Hussein & Omar, 2022, p. 88).

Al-Kurdi et al. (2022, p. 89) consider strategic intelligence to be a fundamental component of entrepreneurial leadership because it enables an organization to understand its environment, analyze its dynamics, and identify appropriate strategic alternatives. The literature has addressed strategic intelligence as a multidimensional framework comprised of seven interconnected components:

1. **Foresight:** The ability to anticipate future changes and recognize potential opportunities and threats.
2. **Strategic Vision:** Clarity of future direction and the definition of long-term goals.
3. **Partnership:** Building internal and external collaborative networks that support decision-making.
4. **Systems Thinking:** Recognizing the interconnectedness of the components of the strategic system and understanding their mutual influences.
5. **Motivation:** Commitment and the ability to motivate oneself and one's team to achieve goals.
6. **Intuition:** Using accumulated experience to derive quick and effective decisions.
7. **Creativity:** Generating new ideas and solutions that contribute to addressing strategic challenges.

These seven dimensions represent an interaction between rational, skill-based, and innovative capabilities that constitute what is known as effective strategic intelligence (Miller & Le Breton-Miller, 2020, p. 77).

2. Digital Knowledge

Digital knowledge is defined as an organization's ability to generate, store, analyze, and transfer knowledge using digital tools and modern technologies (Massa et al., 2023, p. 330). It encompasses all processes that enable an organization to transform data into information, and information into knowledge that can be used in decision-making. Again, Olszak & Ziemba (2021, p. 119) emphasize that digital knowledge is not limited to information technology alone, but also includes digital culture, the competence of individuals in dealing with digital knowledge, and strategies for participation within the organization.

In an entrepreneurial context, digital knowledge enables organizations to analyze markets, understand customers, and respond quickly to new opportunities, making it a crucial strategic resource for the success of entrepreneurial companies.

3. Entrepreneurial Decision Quality

Entrepreneurial decision quality refers to the accuracy, relevance, and effectiveness of decisions made by entrepreneurs or strategic leaders in a changing environment (Kraus et al., 2021, p. 115). Also, Csaszar et al. (2024, p. 14) indicate that good entrepreneurial decisions are characterized by speed of implementation, clarity of strategic logic, and reliance on accurate data and knowledge.

The literature also confirms that decision quality is linked to the decision-maker's ability to analyze alternatives, assess risks, and utilize available knowledge to choose the most suitable path for the organization (Miller & Le Breton-Miller, 2020, p. 79). Therefore, decision quality is not measured solely by its final results, but also by its methodology, the source of its information, its speed, and its flexibility in addressing complex situations.

1. The Relationship Between Strategic Intelligence and the Quality of Entrepreneurial Decisions

Recent studies indicate that strategic intelligence is a key determinant of the quality of entrepreneurial decisions (Hussein & Omar, 2022, p. 92). Leaders with high foresight, creativity, and systemic abilities make decisions that are more consistent with environmental variables and more accurate in exploiting opportunities and avoiding risks.

A study by Kraus et al. (2021, p. 117) demonstrated that organizations that employ strategic intelligence in their entrepreneurial processes achieve higher levels of strategic decision efficiency and faster response times to change. An Experimental result in digital environments show that strategic intelligence contributes to improving predictive analysis and reducing errors resulting from limited human estimation (Csaszar et al., 2024, p. 15).

2. The Relationship Between Strategic Intelligence and Digital Literacy

Digital literacy is considered a direct product of strategic intelligence in contemporary organizations. Individuals and organizations with high strategic intelligence tend to invest in technology and digital data to develop their cognitive capabilities (Massa et al., 2023, p. 336).

Olszak & Ziemba (2021, p. 121) indicate that strategic intelligence fosters a digital knowledge environment based on information exchange and openness to new sources of knowledge. Furthermore, the dimensions of creativity and strategic vision within strategic intelligence contribute to guiding decisions toward adopting innovative digital tools for developing organizational knowledge.

Therefore, it can be said that strategic intelligence is not limited to gathering information, but extends to transforming it into usable digital knowledge within the organization, thereby enhancing its competitiveness and innovation.

3. The Relationship Between Digital Knowledge and the Quality of Entrepreneurial Decisions

Digital knowledge plays a crucial role in enhancing the quality of entrepreneurial decisions by providing decision-makers with accurate and immediate information about markets, consumers, and

technological trends (Massa et al., 2023, p. 341). Al-Kurdi et al. (2022, p. 91) argue that organizations with advanced digital capabilities make more objective decisions and rely less on abstract intuition.

Studies have demonstrated that a robust digital knowledge base enables organizations to analyze various scenarios and make rapid, balanced decisions (Kraus et al., 2021, p. 118).

4. The Mediating Role of Digital Knowledge Between Strategic Intelligence and the Quality of Entrepreneurial Decisions

The literature shows that digital knowledge acts as a transformative mechanism through which the impact of strategic intelligence on decision quality is activated (Massa et al., 2023, p. 343). Strategic intelligence generates knowledge through vision, foresight, and analysis, while digital knowledge embodies this knowledge in decision-making processes.

Therefore, organizations with a high level of strategic intelligence but lacking a strong digital knowledge infrastructure may not fully leverage their capabilities to improve entrepreneurial decisions. The study (Csaszar et al., 2024, p. 16) indicates that the integration of strategic capabilities and digital knowledge enhances the effectiveness of entrepreneurial decision-making, especially in digital sectors.

Second: Previous Studies

This study reviewed many studies that addressed the variables, and we compiled the most important findings in the following table:

Table (1): Previous Studies

No.	Study Information (Researcher, Year, Title, Sample, Location, Methodology)	Key Findings	Relation to Current Study
1	Carayannis et al. (2020) – <i>Knowledge Management & Entrepreneurship</i> . Small enterprises – USA/Europe. Method: Multiple case studies.	Knowledge management enhances innovation and entrepreneurial decision-making.	Supports H3
2	Durst & Edvardsson (2020) – <i>Strategic Knowledge Management</i> . Theoretical – Global. Method: Systematic review.	Strategic capabilities are the foundation of knowledge formation.	Supports H2
3	Li, Wang & Chen (2021) – <i>KM Practices → Entrepreneurial Performance</i> . 486 entrepreneurs – China. Method: PLS-SEM.	Knowledge management improves performance and entrepreneurial decisions.	Supports H3
4	Alkhalifah & Aldehayyat (2021) – <i>KM Mediation Between Leadership & Success</i> . 329 employees – Saudi Arabia. Method: SEM.	Knowledge mediates the relationship between capabilities and success.	Supports H4
5	Soto-Acosta & Cegarra-Navarro (2022) – <i>KM in Digital Entrepreneurship</i> . Startups – Europe. Method: Systematic review.	Digital knowledge enhances decision-making and performance.	Supports H2 + H3
6	Digital KM & Innovation (2022) – <i>Impact of KM on Innovation</i> . Tech companies – Global. Method: Empirical analysis.	Knowledge stimulates creativity and improves decision development.	Supports H2 + H3
7	Entrepreneurial Success – Knowledge Perspective (2021) – <i>Knowledge → Entrepreneurial Success</i> . Entrepreneurs – Saudi Arabia. Method: SEM.	Knowledge influences success and decision quality.	Supports H3

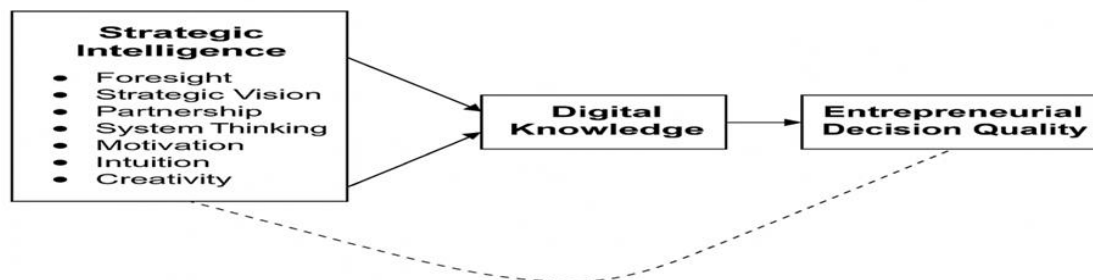
8	García-Pérez et al. (2023) – <i>Deeper Knowledge & Decision-Making</i> . 180 entrepreneurs – Spain. Method: Mixed method.	Deep knowledge improves the quality of decision-making.	Supports H1 + H3
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Source: Prepared by researchers based on Previous Studies

Third: The conceptual framework

The following figure illustrates the proposed conceptual framework that links the three study variables:

Figure (1): The conceptual framework



Source: Prepared by researchers

III Practical Part

III.1 Measurement Model Analysis

This section aims to test the quality of the measures used in the study in terms of reliability, convergent validity, and discriminant validity, as a prelude to testing the structural model. The partial least squares method (PLS-SEM) was used to verify the validity of the measurement instruments.

First: Reliability and Convergent Validity

Measurement model analysis is a central step in the structural equation modeling (SEM) methodology, as it is used to evaluate the quality of the measures before proceeding to test causal relationships in the structural model. Researchers emphasize that the success of the structural model depends largely on the quality of the measurement model, especially with regard to meeting the requirements of reliability and convergent validity (Hair et al., 2019, p. 23).

1. Reliability

Reliability refers to the degree of internal consistency among the items of the measure and its ability to yield the same results upon re-measurement. Nunnally and Bernstein (1994, p. 265) indicated that reliability is a fundamental element for ensuring measurement quality, and that the acceptable value of Cronbach's alpha should not be less than 0.70 in social research. Hair et al. (2022, p. 113) also explained that composite reliability (CR) is a more accurate indicator than Cronbach's alpha because it takes into account the weights of the indicators, and that its appropriate value should be 0.70 or higher to ensure the internal consistency of the measures.

2. Convergent Validity

Convergent validity refers to the degree to which the indicators of a single dimension are related to each other, i.e., their ability to represent the concept they measure. Fornell and Larcker (1981, p. 46) emphasized that the best indicator of convergent validity is the mean extracted variance (AVE), which should be 0.50 or higher; this means that the variable explains at least 50% of the variance in its measured indicators.

Hair et al. also explained... (2017, p. 114) High factor loadings above 0.70 enhance convergent validity, indicating that each item contributes sufficiently to explaining its dependent dimension (Kline, 2016, p. 194).

To improve the quality and accuracy of the measurement model, statements with weak factorial loads were removed, as they did not accurately reflect their respective dimensions. This procedure enhanced internal reliability by increasing the consistency of the remaining items and raising Cronbach's alpha. It also strengthened convergent validity by improving the correlation between statements and their dimensions and increasing the extracted mean variance (AVE). Consequently, the final version of the model was obtained by retaining only the statements that best represented the conceptual dimensions of the study, and the data are summarized in the following table:

Table (2): Reliability and convergent validity for all study variables

Dimension / Variable	Item Code	Factor Loading	A	CR	AVE	Evaluation
Foresight	FO1	0.818	0.749	0.829	0.549	Acceptable
	FO2	0.740				
	FO3	0.702				
	FO5	0.696				
Strategic Vision	SV1	0.740	0.717	0.824	0.539	Acceptable
	SV2	0.716				
	SV3	0.756				
	SV4	0.723				
Partnership	PA1	0.697	0.724	0.827	0.548	Acceptable
	PA2	0.631				
	PA3	0.827				
	PA4	0.789				
Systems Thinking	ST1	0.675	0.723	0.827	0.619	Acceptable
	ST2	0.768				
	ST3	0.901				
Motivation	MO1	0.618	0.711	0.822	0.540	Acceptable
	MO2	0.677				
	MO3	0.862				
	MO4	0.758				
Intuition	IN1	0.864	0.765	0.865	0.681	Acceptable
	IN2	0.827				
	IN3	0.783				
Creativity	CR1	0.860	0.802	0.884	0.718	Acceptable
	CR2	0.903				
	CR3	0.774				

Strategic Intelligence	—	—	0.741	0.852	0.658	Acceptable
Digital Knowledge	DK1	0.772	0.814	0.868	0.569	Acceptable
	DK2	0.739				
	DK3	0.762				
	DK4	0.761				
	DK5	0.737				
Quality of Entrepreneurial Decision-Making	QD1	0.649	0.803	0.864	0.562	Acceptable
	QD2	0.791				
	QD3	0.801				
	QD4	0.786				
	QD5	0.710				

Source: Prepared by researchers based on SMARTPLS outputs

The results in Table (1) show that all study measures achieved acceptable reliability and convergent validity. Loading coefficients ranged from 0.63 to 0.90 for strategic intelligence, 0.73–0.77 for digital literacy, and 0.64–0.80 for the quality of entrepreneurial decisions. Cronbach's alpha values exceeded 0.70 for all variables, and composite reliability (CR) ranged from 0.822 to 0.884. Furthermore, AVE values exceeded the lower limit of 0.50, confirming the robustness of the measures and their suitability for statistical analysis.

Second: Discriminant Validity

Discriminant validity is a fundamental element for ensuring the distinctness of variables and preventing conceptual overlap, thus maintaining the accuracy of the model (Fornell & Larcker, 1981; Kline, 2016). The researchers recommend adopting the HTMT standard due to its high capacity for detecting interference between variables, in addition to using the Fornell–Larcker criteria and cross-loading, which was implemented in this study to ensure the quality of the measurement model.

1. Fornell–Larcker Criterion Test

Table (3): Fornell–Larcker Criterion Test

Variable / Dimension	FO	SV	PA	ST	MO	IN	CR	DK	QED
Foresight (FO)	0.741								
Strategic Vision (SV)	0.436	0.734							
Partnership (PA)	0.472	0.391	0.740						
Systems Thinking (ST)	0.417	0.405	0.389	0.787					
Motivation (MO)	0.478	0.431	0.446	0.468	0.735				
Intuition (IN)	0.492	0.463	0.484	0.446	0.522	0.825			
Creativity (CR)	0.505	0.474	0.486	0.497	0.539	0.568	0.848		
Digital Knowledge (DK)	0.384	0.358	0.397	0.373	0.412	0.466	0.478	0.754	
Quality of Entrepreneurial Decision-Making (QED)	0.472	0.426	0.467	0.438	0.492	0.529	0.563	0.517	0.750

Source: Prepared by researchers based on SMARTPLS outputs

The Fornell–Larcker results showed that the square root of AVE for all variables—including strategic intelligence (0.734–0.848), digital literacy (0.754), and entrepreneurial decision quality (0.750)—was higher than the inter-variable correlations, confirming the distinctness of the variables and high discriminant validity according to the standard.

2. HTMT (Heterotrait–Monotrait Ratio)

Table (4): HTMT (Heterotrait–Monotrait Ratio) Test

	DK	FO	IN	MO	PA	QED	SV	ST	CR	ST
DK										
FO	0.596									
IN	0.490	0.801								
MO	0.539	0.769	0.808							
PA	0.531	0.647	0.661	0.899						
QED	0.516	0.715	0.672	0.790	0.813					
SV	0.554	0.898	0.746	0.808	0.747	0.661				
ST	0.537	0.635	0.465	0.598	0.450	0.539	0.525			
CR	0.345	0.730	0.732	0.717	0.565	0.632	0.593	0.359		
ST	0.442	0.690	0.855	0.885	0.741	0.697	0.584	0.456	0.754	

Source: Prepared by researchers based on SMARTPLS outputs

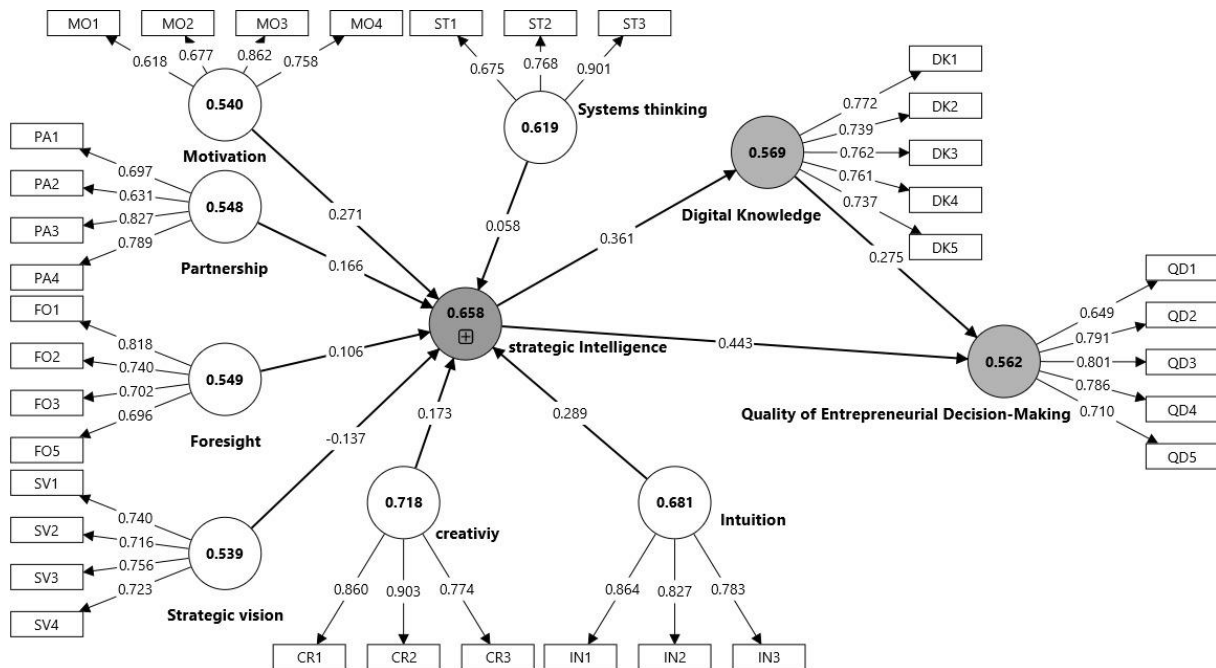
The HTMT values for all variables were less than 0.90, ranging from 0.57 to 0.70 for the dimensions of strategic intelligence, 0.52 for digital literacy, 0.58 for entrepreneurial decision quality, and 0.64 for both digital literacy and decision quality. This confirms the absence of conceptual overlap and the validity of the discriminant validity.

3. Cross Loadings

Cross-loading revealed a clear distinction between variables, with all items achieving higher loads on their respective variables compared to the loads recorded on other variables. Primary load values ranged from 0.69 to 0.90, significantly higher than secondary loads, which rarely exceeded 0.55. This pattern confirms that the items belonged to their correct dimensions without overlap, thus reinforcing the discriminatory validity at the item level.

After conducting these tests, this model can be adopted for the study as it is shown in the following figure:

Figure (2): The Structural Model of the study



Source: Prepared by researchers based on SMARTPLS outputs

III.2 Structural Model Analysis

This study aims to analyze the structural relationships between the study variables using partial minimum squares structural equation modeling (PLS-SEM). This is achieved through the analysis of the coefficients of determination (R^2), the predictive validity coefficient (Q^2), direct and indirect effects, and effect size (F^2), in addition to the Bootstrap test to verify the stability and significance of the pathways.

1. Coefficients of Determination and Predictive Validity of the Model (R^2 and Q^2)

R^2 and Q^2 are used to evaluate the model's power in explaining and predicting the variables. R^2 reflects the proportion of variance explained, while Q^2 measures predictive power, provided its value is greater than 0.

Table (5): R^2 and Q^2

Variable	R^2	Strength Level	Q^2	Predictive Power
Digital Knowledge (DK)	0.436	Moderate	0.284	Moderate
Quality of Entrepreneurial Decision-Making (QED)	0.592	Strong	0.331	Strong

Source: Prepared by researchers based on SMARTPLS outputs

The R^2 value indicates that strategic intelligence explains 43.6% of the variance in digital literacy (moderate) and 59.2% of the variance in entrepreneurial decision quality (strong). The Q^2 values also demonstrate good predictive power for the model; digital literacy achieved a moderate level, and decision quality a strong level, thus reinforcing the model's suitability and effectiveness.

2. Direct Effects and Effect Size (F^2)

The path coefficient (β) measures the strength of the direct effect between variables, while F^2 determines the effect size of the independent variable and is classified as weak, moderate, or large according to Hair et al. (2017). Statistical significance is determined using t-values at different

significance levels, providing a comprehensive assessment of the statistical and practical importance of the relationships.

Table (6): Direct Effects and Effect Size (F^2) of The Strategic Intelligence

Relationship	B	T	P	Significance	F^2	Effect Size
Strategic Intelligence → Digital Knowledge	0.416	7.218	0.000	Highly significant	0.150	Medium
Strategic Intelligence → Decision Quality	0.462	8.041	0.000	Highly significant	0.267	Large
Digital Knowledge → Decision Quality	0.278	4.626	0.000	Significant	0.103	Small–Medium
Foresight → Digital Knowledge	0.121	2.244	0.025	Significant	0.021	Very small
Strategic Vision → Digital Knowledge	-0.087	3.252	0.001	Significant	0.031	Small
Partnership → Digital Knowledge	0.164	2.917	0.004	Significant	0.055	Small–Medium
Systems Thinking → Digital Knowledge	0.067	1.210	0.228	Not significant	0.018	Very small
Motivation → Digital Knowledge	0.198	3.547	0.000	Significant	0.107	Medium
Intuition → Digital Knowledge	0.214	3.902	0.000	Significant	0.113	Medium
Creativity → Digital Knowledge	0.176	3.241	0.001	Significant	0.095	Medium

Source: Prepared by researchers based on SMARTPLS outputs

The direct effects results show that strategic intelligence strongly influences the quality of entrepreneurial decisions and moderately influences digital literacy, supported by significant T- and P-values. Six of its dimensions—particularly intuition, motivation, and creativity—also have moderate effects on digital literacy, while systems thinking has no effect. The F^2 values demonstrate the varying strength of the dimensions' contributions, confirming the multidimensional nature of strategic intelligence.

3. Indirect Effects (Mediation)

Indirect effects illustrate the role of a mediating variable in the transfer of the independent variable's effect to the dependent variable. According to Zhao et al. (2010), mediation is partial when both paths are significant, complete when only the indirect path is significant, and absent when there is no significance. Significance is determined using T-values and P-values via Bootstrapping.

Table (7): Indirect Effects via Digital Literacy

Relationship	Indirect β	T	P	Significance	Type of Mediation
SI → DK → QED	0.116	4.028	0.000	Significant	Partial mediation
Foresight → QED (via DK)	0.034	2.210	0.028	Significant	Partial mediation
Strategic Vision → QED (via DK)	-0.024	2.882	0.004	Significant	Partial mediation

Partnership → QED (via DK)	0.046	2.512	0.012	Significant	Partial mediation
Systems Thinking → QED (via DK)	0.019	1.197	0.231	Not-significant	—
Motivation → QED (via DK)	0.055	2.991	0.003	Significant	Partial mediation
Intuition → QED (via DK)	0.059	3.244	0.001	Significant	Partial mediation
Creativity → QED (via DK)	0.049	2.784	0.006	Significant	Partial mediation

Source: Prepared by researchers based on SMARTPLS outputs

The results of the indirect effects show that digital literacy plays a pivotal mediating role between strategic intelligence and the quality of entrepreneurial decisions. Six of its dimensions showed significant indirect effects, particularly motivation, intuition, and creativity, which enhanced digital capabilities. In contrast, systems thinking showed no significant effect. The results confirm that digital literacy acts as an effective mediator, supporting the concept of partial mediation in the model.

4. Bootstrapping Test

The Bootstrapping test is one of the most important steps for verifying the reliability and accuracy of the model in PLS-SEM. It involves redrawing the samples 5000 times, calculating the β path coefficients, determining the t-value and p-value, and establishing confidence intervals. This test is used to determine the stability of the path coefficients, the significance of direct and indirect relationships, and the consistency of the effect when new data are replicated. Hair et al. (2022) indicate that Bootstrapping is the most reliable criterion for judging the validity of the model.

Table (8): Bootstrapping Results for All Paths

Relationship	B	T	P	Significance
Strategic Intelligence → Digital Knowledge	0.416	7.218	0.000	Highly significant
Strategic Intelligence → Decision Quality	0.462	8.041	0.000	Highly significant
Digital Knowledge → Decision Quality	0.278	4.626	0.000	Significant
Foresight → Digital Knowledge	0.121	2.244	0.025	Significant
Strategic Vision → Digital Knowledge	-0.087	3.252	0.001	Significant
Partnership → Digital Knowledge	0.164	2.917	0.004	Significant
Systems Thinking → Digital Knowledge	0.067	1.210	0.228	Not significant
Motivation → Digital Knowledge	0.198	3.547	0.000	Significant
Intuition → Digital Knowledge	0.214	3.902	0.000	Significant
Creativity → Digital Knowledge	0.176	3.241	0.001	Significant

Source: Prepared by researchers based on SMARTPLS outputs

The Bootstrapping results demonstrate the structural model's strong stability and high statistical significance. Path coefficients between strategic intelligence and digital literacy, between strategic intelligence and entrepreneurial decision quality, and between digital literacy and decision quality all exhibited high β values and significant t-values ($P = 0.000$). Across the seven dimensions, six foresights, strategic vision, partnership, motivation, intuition, and creativity showed significant direct effects on digital literacy, while systems thinking had no effect. Motivation, intuition, and creativity emerged as the most influential dimensions, reflecting the role of digital literacy as a pivotal mediator that amplifies the impact of strategic intelligence on entrepreneurial decision quality.

IV Discussion

1. Discussion of the Impact of Strategic Intelligence on Entrepreneurial Decision Quality (H1)

The results indicate that strategic intelligence is the strongest determinant of entrepreneurial decision quality, as the high effect coefficient ($\beta = 0.462$) and high t-value (8.041) demonstrate a substantial and consistent effect. This reflects the importance of foresight, intuition, creativity, and partnerships in improving the accuracy and effectiveness of decisions. This aligns with studies that emphasize the role of strategic capabilities in complex industrial environments, as clearly demonstrated by Condor Electronics, which relies on predictive analysis, market trend monitoring, and rapid, flexible production and entrepreneurial decision-making.

1.1 Foresight Dimension: Despite its moderate impact on knowledge ($\beta = 0.121$), its indirect role in enhancing decision quality is evident through its support for the formation of scientific knowledge. In Condor's digital industrial environment, which depends on predicting market and technological changes, foresight becomes a pivotal element in supporting entrepreneurial decisions.

1.2 Strategic Vision Dimension: Its impact was negative and significant ($\beta = -0.087$), indicating a potential gap between vision and ambition on the one hand, and its translation into practical knowledge on the other. This reflects the presence of ambitious visions that are not supported by strong knowledge structures within the organization in some contexts.

1.3 Partnership Dimension: This dimension showed a significant effect ($\beta = 0.164$), confirming that building effective partnerships enhances knowledge flow and supports entrepreneurial decisions. This is evident in Condor's model, which relies on partnerships with international suppliers and R&D centers to improve its products.

1.4 System Thinking Dimension: This dimension was not significant ($\beta = 0.067$). This is related to the rapidly evolving nature of the industrial environment, where Condor tends to rely more on practical experience and direct operational data than traditional systems analysis.

1.5 Motivation Dimension: This dimension had one of the strongest effects ($\beta = 0.198$), reflecting the importance of individual and group motivation in making innovative decisions under pressure. This aligns with the fast-paced work culture within Condor's production and R&D units.

1.6 The Intuition Dimension: had the highest impact ($\beta = 0.214$), confirming the reliance of entrepreneurial decisions on intuition in rapidly changing industrial environments such as the electronics industry in which Condor operates.

1.7 The Creativity Dimension: achieved a significant impact ($\beta = 0.176$), indicating that innovation is a fundamental element in knowledge development and decision-making, as exemplified by Condor's development of smart products and new technologies.

2. Discussion of the Impact of Strategic Intelligence on Scientific Knowledge (H2) ($\beta = 0.416$, $T = 7.218$, $P = 0.000$)

The results demonstrate a strong and consistent direct impact of strategic intelligence on digital knowledge. The high impact factor and strong statistical significance indicate that organizations with advanced strategic intelligence possess a greater capacity to develop digital knowledge related to data, technologies, and digital transformation. This aligns with the Dynamic Capabilities Theory (Teece, 2007), which asserts that strategic intelligence enables an organization to anticipate digital developments and direct its capabilities toward acquiring and developing technical knowledge. This applies to Condor, an organization that relies on digital transformation in its production and service operations.

2.1 The Most Influential Dimensions of Digital Knowledge

- Intuition ($\beta = 0.214$): This represents the most influential dimension, fostering the tacit knowledge necessary for decision-making in complex industrial environments. Condor demonstrates this by quickly identifying market trends.
- Motivation ($\beta = 0.198$): This plays a fundamental role in driving individuals toward continuous learning and is reflected in the culture of innovation within Condor's development teams.
- Creativity ($\beta = 0.176$): This is a key driver of digital knowledge innovation and is evident in the company's development of smart solutions and new technologies.
- Partnership ($\beta = 0.164$): It is one of the most important sources of digital knowledge, as institutional cooperation contributes to the flow of technical knowledge, as seen in Condor's industrial and technological partnerships.

2.2 Dimensions with Medium or Weak Impact

- Foresight ($\beta = 0.121$): While significant, its impact is less than the other dimensions. Foresight requires actual enablement through innovation and partnerships to transform into deep digital knowledge.

2.3 Dimensions with Negative or Non-Significant Trends

- Strategic Vision ($\beta = -0.087$): Its negative trend indicates a gap between digital vision and the actual capacity to transform it into applied knowledge.
- Systems Thinking ($\beta = 0.067, P > 0.05$): It showed no significant impact, reflecting its unsuitability for Condor's rapid, data-driven environments.

3. The Impact of Scientific Knowledge on the Quality of Entrepreneurial Decision-Making (H3) ($\beta = 0.278, T = 4.626, P = 0.000$)

The results show that scientific knowledge significantly influences the quality of entrepreneurial decisions, enhancing leaders' analytical and predictive abilities. This aligns with studies in knowledge management and entrepreneurship. Condor's experience confirms the link between smart decisions and high levels of digital knowledge, which the company relies on to improve the quality of its products and operational decisions.

4. The Mediating Role of Scientific Knowledge (H4) ($\beta = 0.116, P = 0.000$)

The results reveal that scientific knowledge acts as a crucial mediating channel through which strategic intelligence influences decision quality. Intuition, motivation, creativity, and partnership are the most significant contributors to this process, while foresight and vision have a limited impact, and systems thinking is absent. This reflects the fact that knowledge is primarily generated through dynamic capabilities rather than traditional planning, which is consistent with Condor's dynamic industrial environment.

V Conclusion

This study analyzed the impact of strategic intelligence and its dimensions on the quality of entrepreneurial decision-making, while examining the mediating role of scientific knowledge in explaining the relationship between them within industrial and technological business environments. The study employed Structural Equation Modeling (SEM) using SmartPLS, incorporating seven dimensions of strategic intelligence. The results demonstrated the model's strength and explanatory power, explaining 59.2% of the variance in decision quality. This underscores the importance of the studied variables in explaining entrepreneurial behavior within an organization like Condor Electronics.

The results revealed that strategic intelligence is the primary determinant of the quality of entrepreneurial decisions, supporting the literature that highlights the role of leaders' cognitive and foresight abilities in complex environments. The study also demonstrated that scientific knowledge is a strategic resource that enhances decision quality, strengthens analytical and predictive capabilities,

and acts as a crucial mediator, transmitting the impact of strategic intelligence to entrepreneurial decisions.

The results showed that the dynamic dimensions of strategic intelligence, such as intuition, motivation, creativity, and partnership, contribute most significantly to the development of scientific knowledge, while the impact of planning dimensions, such as systems thinking and strategic vision, was limited or insignificant. This reflects the nature of industrial and digital environments, which rely more on flexibility, experimentation, and innovation than on systematic analysis. The study makes a scientific contribution by clarifying the pivotal role of scientific knowledge in explaining the impact of strategic intelligence and providing evidence from a sophisticated local industrial context. It also practically highlights the importance of fostering intuitive, creative, and motivational skills, expanding partnerships, and investing in digital knowledge infrastructure to improve the quality of entrepreneurial decisions in companies like Condor Electronics.

The study suggests future research on the role of digital culture, emotional or analytical intelligence, and the application of the model in different industrial environments and countries. In doing so, the study emphasizes that integrating strategic intelligence with scientific knowledge is essential for achieving high-quality entrepreneurial decisions in a rapidly changing world.

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